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WATER SUPPLY OUTLOOK FOR OREGON

and
FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS
UNITED STATES DEPARTMENT of AGRICULTURE...SOIL CONSERVATION SERVICE
and
OREGON STATE UNIVERSITY
and
STATE ENGINEER of OREGON

Data included in this report were obtained by the agencies named above
in cooperation with other Federal, State and private organizations.

AS OF
MAR. 1, 1967

TO RECIPIENTS OF WATER SUPPLY OUTLOOK REPORTS:

Most of the usable water in western states originates as mountain snowfall. This snowfall accumulates during the winter and spring, several months before the snow melts and appears as streamflow. Since the runoff from precipitation as snow is delayed, estimates of snowmelt runoff can be made well in advance of its occurrence. Streamflow forecasts published in this report are based principally on measurement of the water equivalent of the mountain snowpack.

Forecasts become more accurate as more of the data affecting runoff are measured. All forecasts assume that climatic factors during the remainder of the snow accumulation and melt season as they affect runoff will add to be an effective average. Early season forecasts are therefore subject to a greater change than those made on later dates.

The snow course measurement is obtained by sampling snow depth and water equivalent at surveyed and marked locations in mountain areas. A total of about ten samples are taken at each location. The average of these are reported as snow depth and water equivalent. These measurements are repeated in the same location near the same dates each year.

Snow surveys are made monthly or semi-monthly from January 1 through June 1 in most states. There are about 1400 snow courses in Western United States and in the Columbia Basin in British Columbia. In the near future, it is anticipated that automatic snow water equivalent sensing devices along with radio telemetry will provide a continuous record of snow water equivalent at key locations.

Detailed data on snow course and soil moisture measurements are presented in state and local reports. Other data or reservoir storage, summaries of precipitation, current streamflow, and soil moisture conditions at valley elevations are also included. The report for Western United States presents a broad picture of water supply outlook conditions, including selected streamflow forecasts, summary of snow accumulation to date, and storage in larger reservoirs.

Snow survey and soil moisture data for the period of record are published by the Soil Conservation Service by states about every five years. Data for the current year is summarized in a West-wide basic data summary and published about October 1 of each year.

Listed below are water supply outlook reports based on Federal-State-Private Cooperative snow surveys. Those published by the Soil Conservation Service may be obtained from Soil Conservation Service, Room 507, Federal Building, 701 N. W. Glisan, Portland, Oregon 97209.

PUBLISHED BY SOIL CONSERVATION SERVICE

D. A. WILLIAMS, Administrator

The Soil Conservation Service publishes reports following the principal snow survey dates from January 1 through June 1 in cooperation with state water administrators, agricultural experiment stations and others. Copies of the reports for Western United States and all state reports may be obtained from Soil Conservation Service, Western Regional Technical Service Center, Room 507, 701 N. W. Glisan, Portland, Oregon 97209.

Copies of state and local reports may also be obtained from state offices of the Soil Conservation Service in the following states:

STATE	ADDRESS
Alaska	P. O. Box "F", Palmer, Alaska 99645
Arizona	6029 Federal Building, Phoenix, Arizona 85205
Colorado (N. Mex.)	12417 Federal Building, Denver, Colorado 80202
Idaho	P. O. Box 38, Boise, Idaho 83701
Montana	P. O. Box 855, Bozeman, Montana 59715
Nevada	P. O. Box 4850, Reno Nevada 89505
Oregon	1218 S. W. Washington St., Portland, Oregon 97205
Utah	4001 Federal Building, Salt Lake City, Utah 84111
Washington	840 Bon Marche Bldg., Spokane, Washington 99206
Wyoming	P. O. Box 340, Casper, Wyoming 82602

PUBLISHED BY OTHER AGENCIES

Water Supply Outlook reports prepared by other agencies include a report for California by the Water Supply Forecast and Snow Surveys Unit, California Department of Water Resources, P. O. Box 388, Sacramento, California 95802 --- and for British Columbia by the Department of Lands, Forests and Water Resources, Water Resources Service, Parliament Building, Victoria, British Columbia



WATER SUPPLY OUTLOOK
for
OREGON
and
FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS

ISSUED
MARCH 8, 1967

Report prepared by
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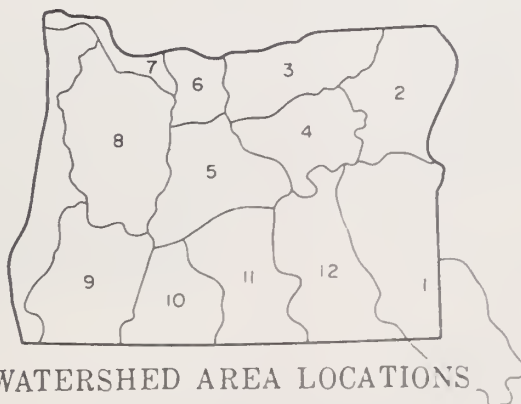
CHRIS L. WHEELER
STATE ENGINEER
STATE OF OREGON

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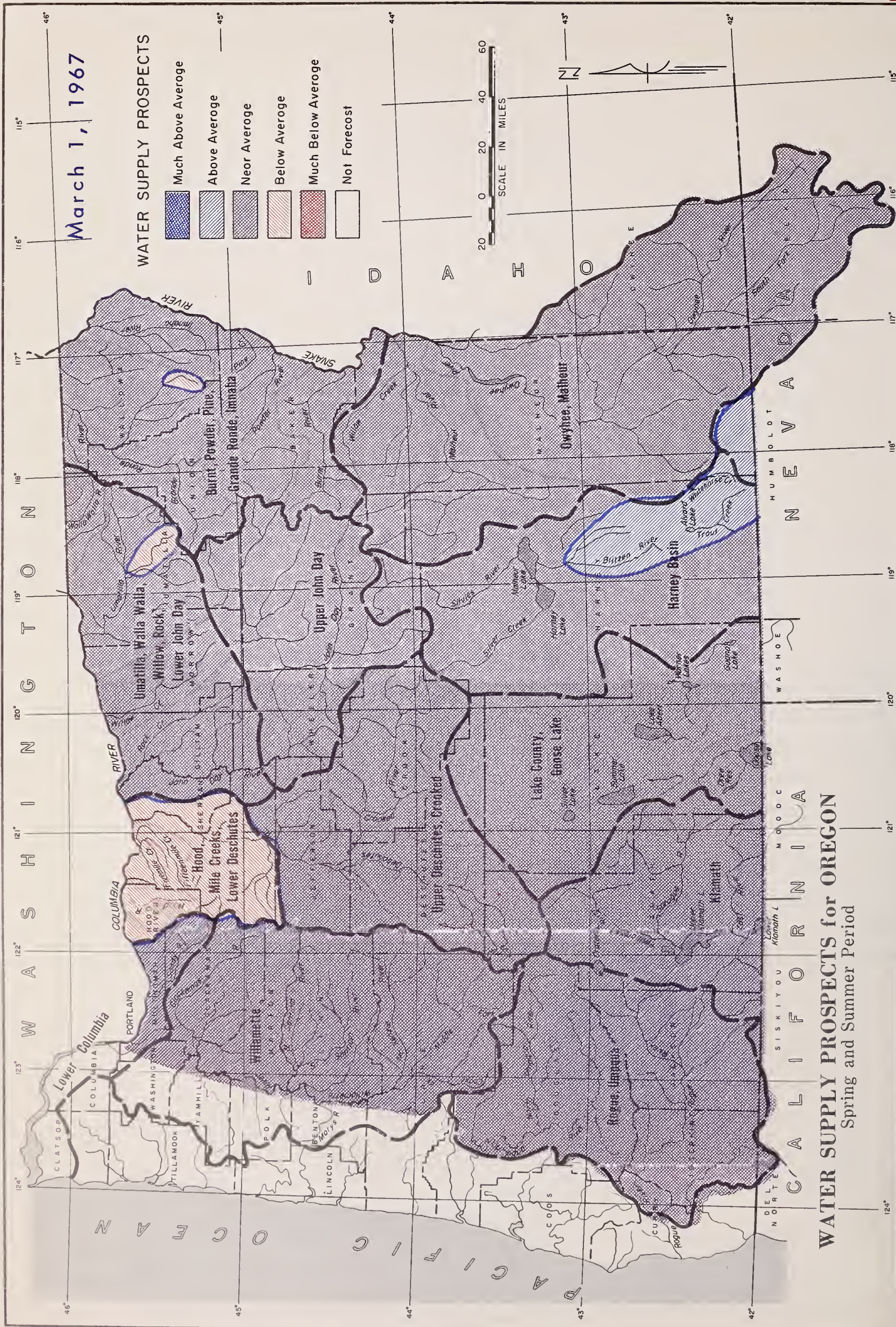
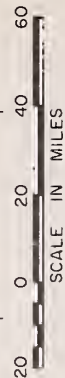
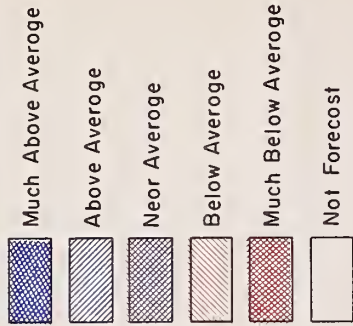
DETAILED WATER SUPPLY OUTLOOK BY MAJOR WATERSHED AREAS

OWYHEE, MALHEUR.....	AREA 1
BURNT, POWDER, PINE, GRANDE RONDE, IMNAHA.....	AREA 2
UMATILLA, WALLA WALLA, WILLOW, ROCK, LOWER JOHN DAY.....	AREA 3
UPPER JOHN DAY.....	AREA 4
UPPER DESCHUTES, CROOKED.....	AREA 5
HOOD, MILE CREEKS, LOWER DESCHUTES.....	AREA 6
LOWER COLUMBIA.....	AREA 7
WILLAMETTE.....	AREA 8
ROGUE, UMPQUA.....	AREA 9
KLAMATH.....	AREA 10
LAKE COUNTY, GOOSE LAKE.....	AREA 11
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MAP AND INDEX OF OREGON SNOW COURSES.....(MAP)	
LIST OF COOPERATORS.....INSIDE BACK COVER	



March 1, 1967

WATER SUPPLY PROSPECTS



WATER SUPPLY PROSPECTS for OREGON
Spring and Summer Period

WATER SUPPLY OUTLOOK for OREGON

March 1, 1967

1967 spring and summer water supplies for most ranchers, farmers and other water users in Oregon will be slightly below average. Deficient February precipitation and reduced snowfall has dimmed the picture of late-season water supplies. On the bright side, watershed soils are well recharged and stored water supplies are mostly satisfactory.

PRECIPITATION

State-wide precipitation in February was very deficient but total winter precipitation, November first to March first, has been above average except in the Willamette and Hood-Wasco areas where it was 93 and 83 percent respectively.

SNOW COVER

Water content of the mountain snowpack on March first is about 86 percent of average with the poorest snow cover in the northeastern and northcentral portions of the state falling off to a low 78 percent average in the Umatilla-Walla Walla area.

RESERVOIR STORAGE

Water stored in 26 reservoirs, used primarily for irrigation, adds up to 1,724,000 acre feet or 92 percent average for this date. However, total storage is only 83 percent of the water held last year.

Most reservoirs will have sufficient water for the 1967 season but both Wallowa Lake and McKay reservoirs in northeastern Oregon are extremely low in storage at this date and will probably furnish only a partial supply this season.

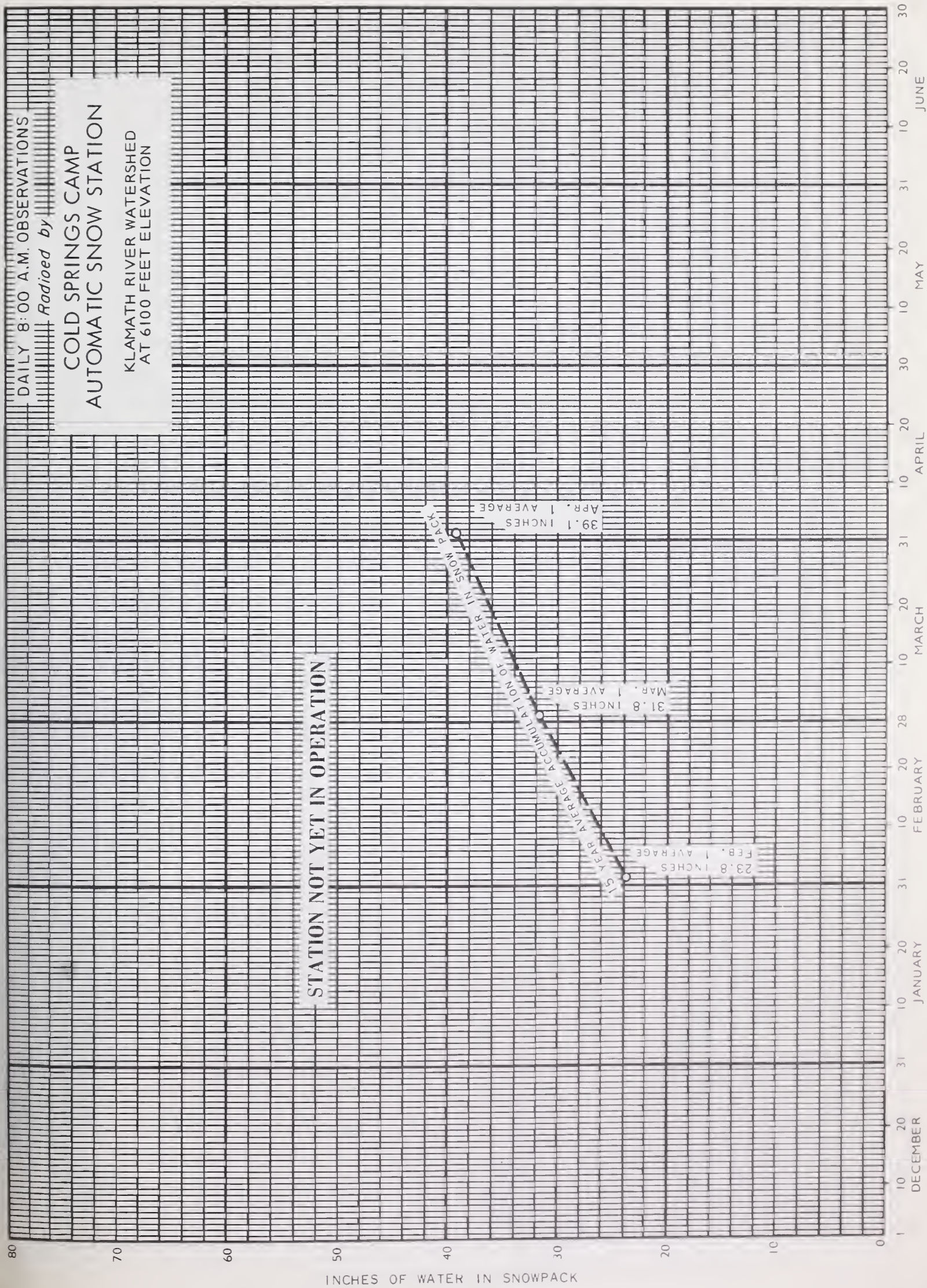
STREAMFLOW

Forecasts of streamflow for the spring and summer of 1967 are slightly below average with Hood River and White River in the Hood-Wasco county area expected to produce only 74 to 75 percent of the 15-year average (1948-62).

A few areas are forecasted to have slightly greater than average streamflow. All streams flowing from the Wallowa Mountains and most streams in the Harney and Klamath Basins are expected to produce more than usual water.

In all other areas the forecasts are between 80 and 96 percent of the 15-year average.

The above estimates of water supply and streamflow are based on the assumption that near average conditions of temperature and precipitation will prevail from now to the end of the season.



U.S.D.A. SOIL CONSERVATION SERVICE DAILY RADIO REPORTS BY AUTOMATIC SNOW MEASURING STATION

DAILY 8:00 A.M. OBSERVATIONS
Radioed by

IRISH-TAYLOR
AUTOMATIC SNOW STATION
UPPER DESCHUTES RIVER WATERSHED
AT 5500 FEET ELEVATION

STATION NOT YET IN OPERATION

INCHES OF WATER IN SNOWPACK

151
AVERAGE ACCUMULATION OF WATER IN SNOWPACK

FEB. 1 AVERAGE
26.8 INCHES

MAR. 1 AVERAGE
37.5 INCHES

APR. 1 AVERAGE
44.6 INCHES

JUNE

MAY

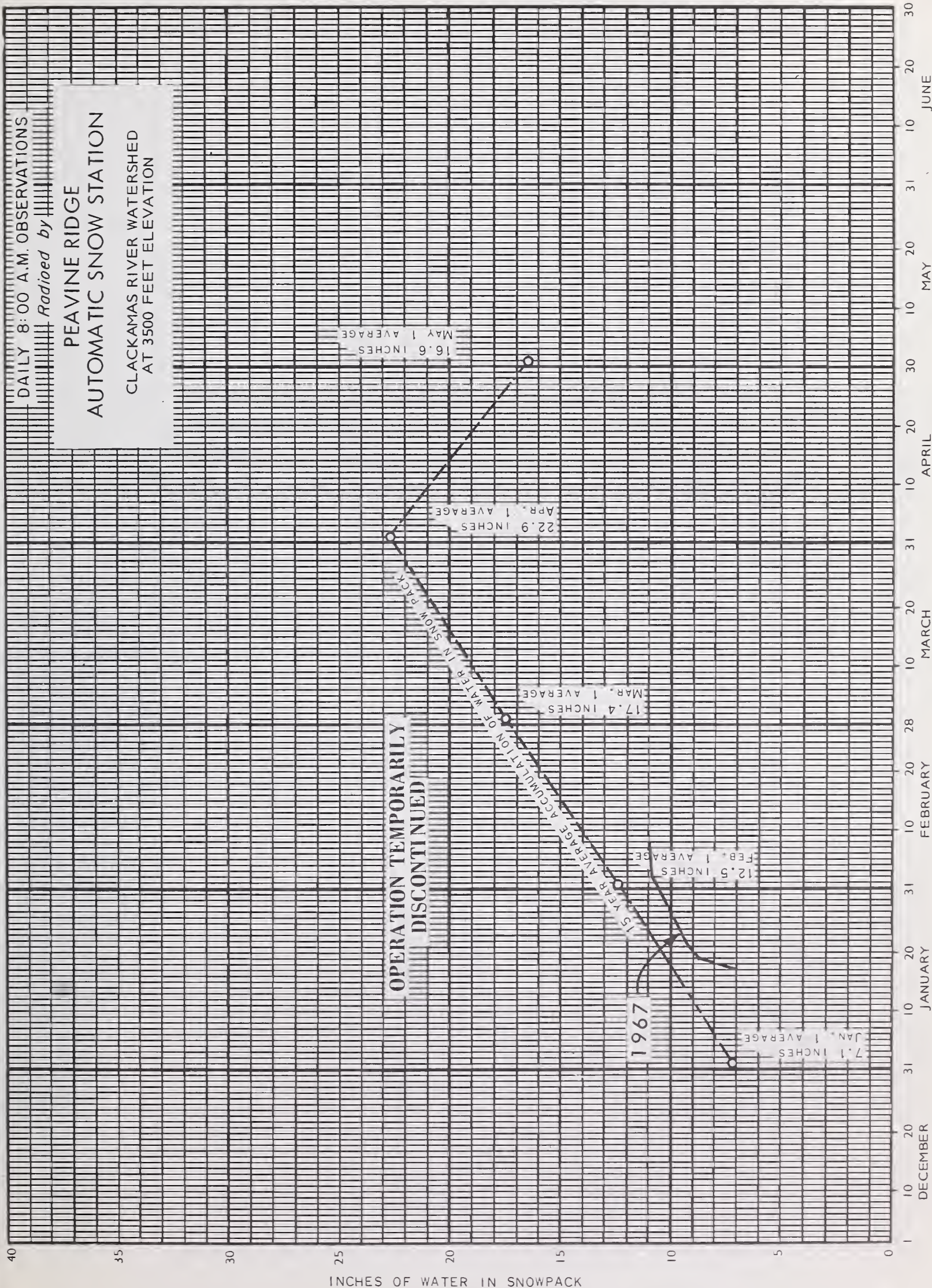
APRIL

MARCH

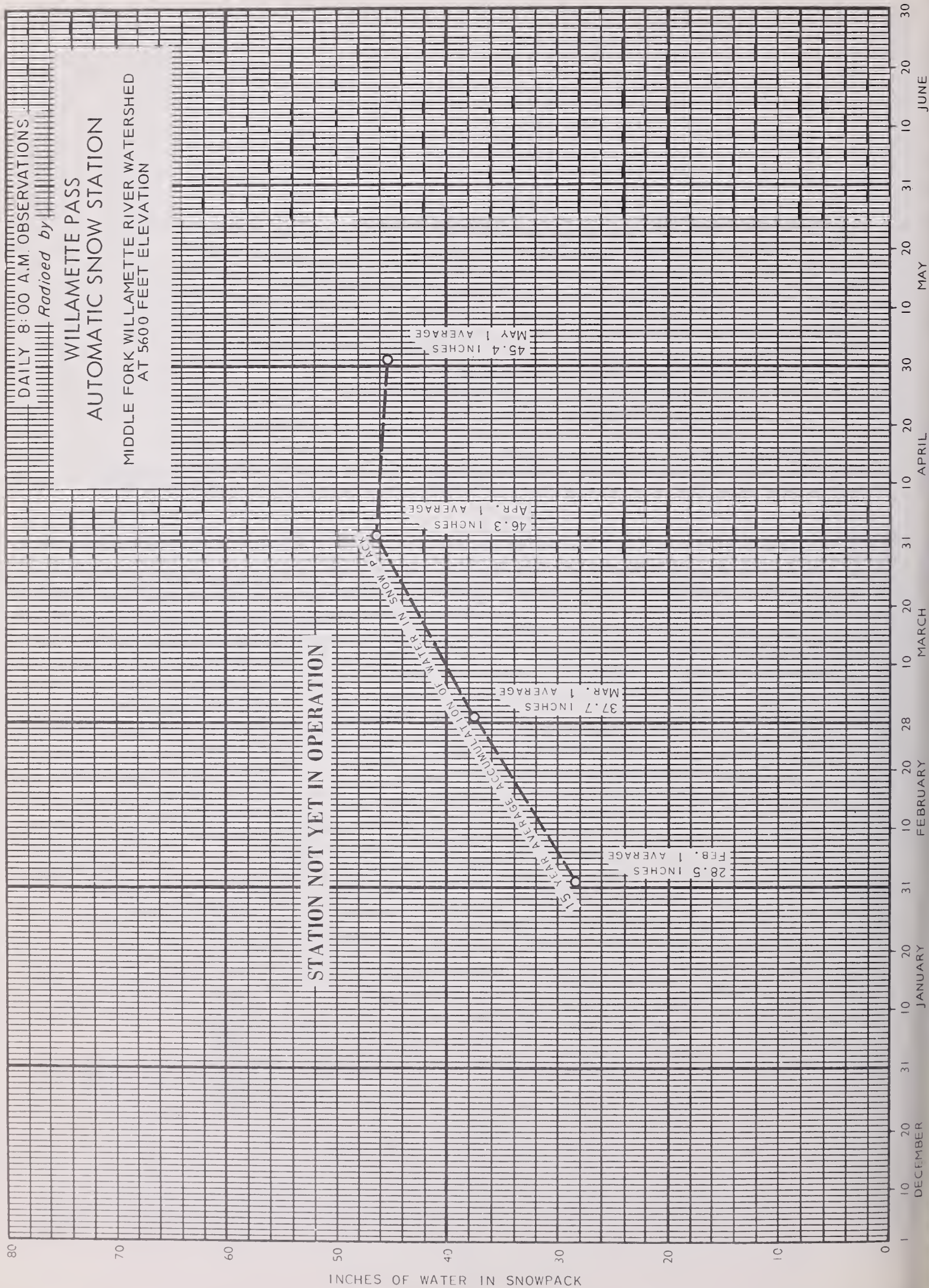
FEBRUARY

JANUARY

DECEMBER



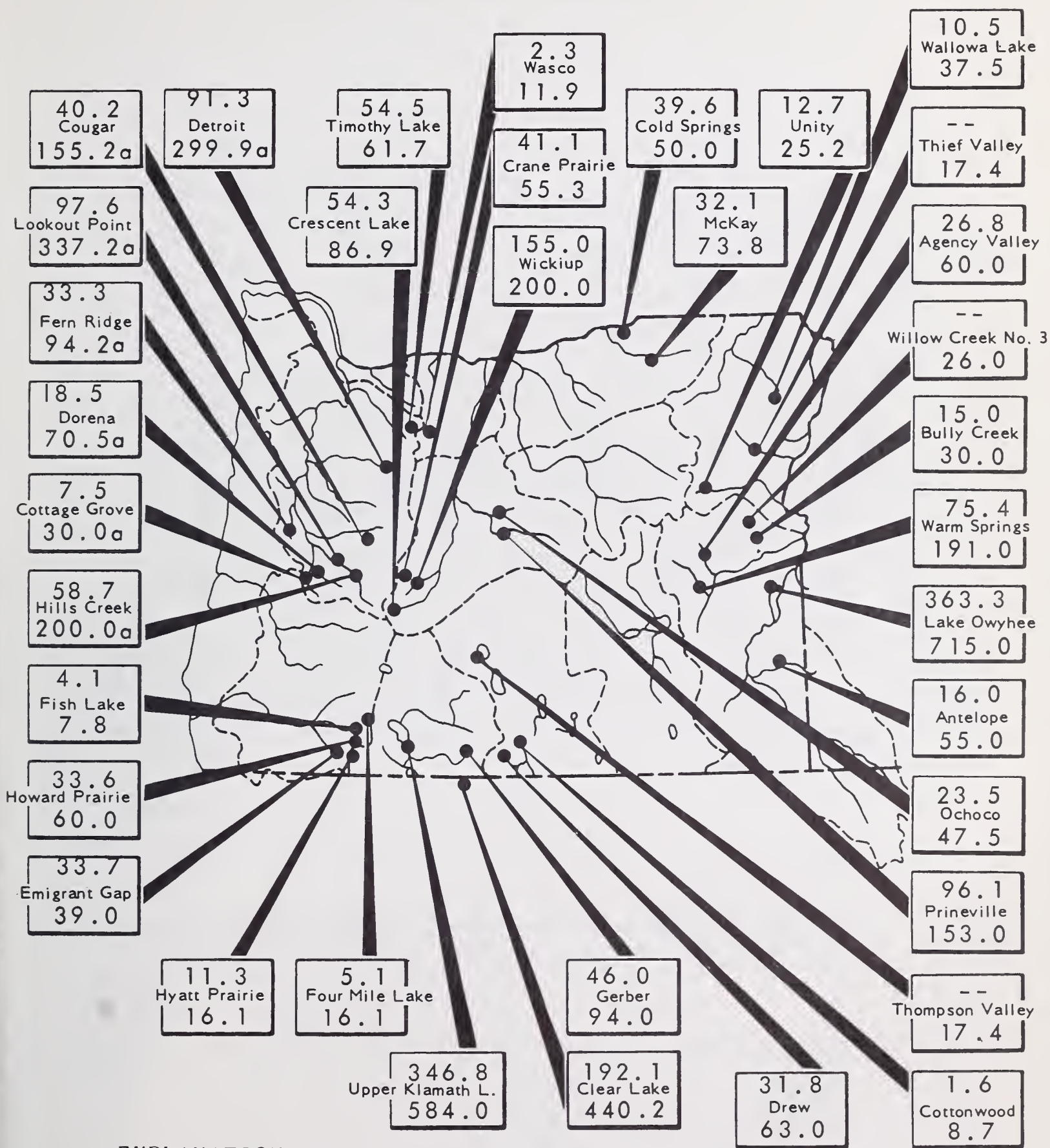
U.S.D.A. SOIL CONSERVATION SERVICE DAILY RADIO REPORTS BY AUTOMATIC SNOW MEASURING STATION



STORAGE STATUS of OREGON RESERVOIRS

usable contents in thousands of acre feet

March 1, 1967



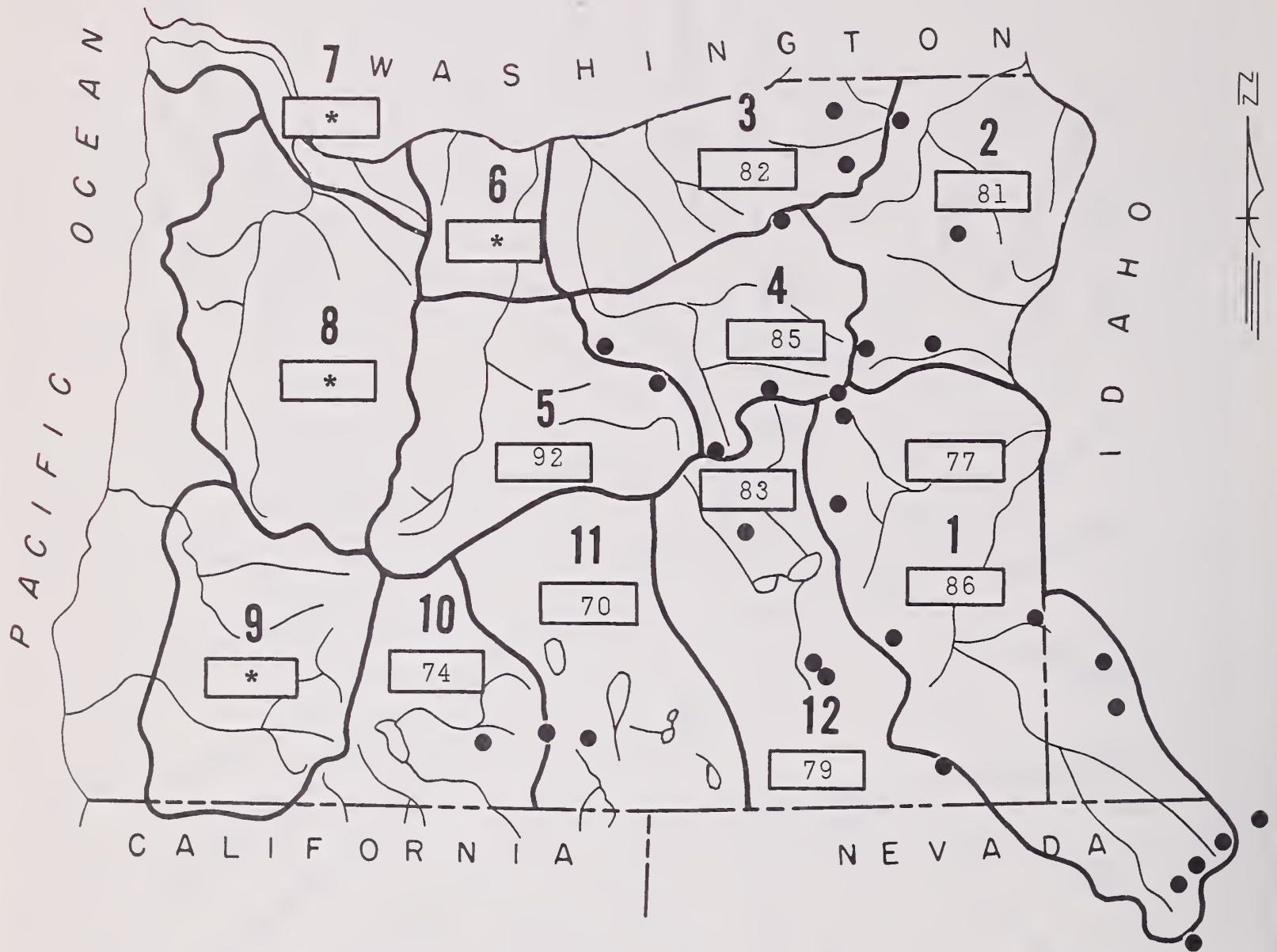
EXPLANATION

687.0	---	Contents
Lake Owyhee		
715.0	---	Capacity

(a) Multiple purpose reservoir - space reserved for flood runoff.
N. R. - No report.

MOUNTAIN SOIL MOISTURE in OREGON as percent of capacity

March 1, 1967

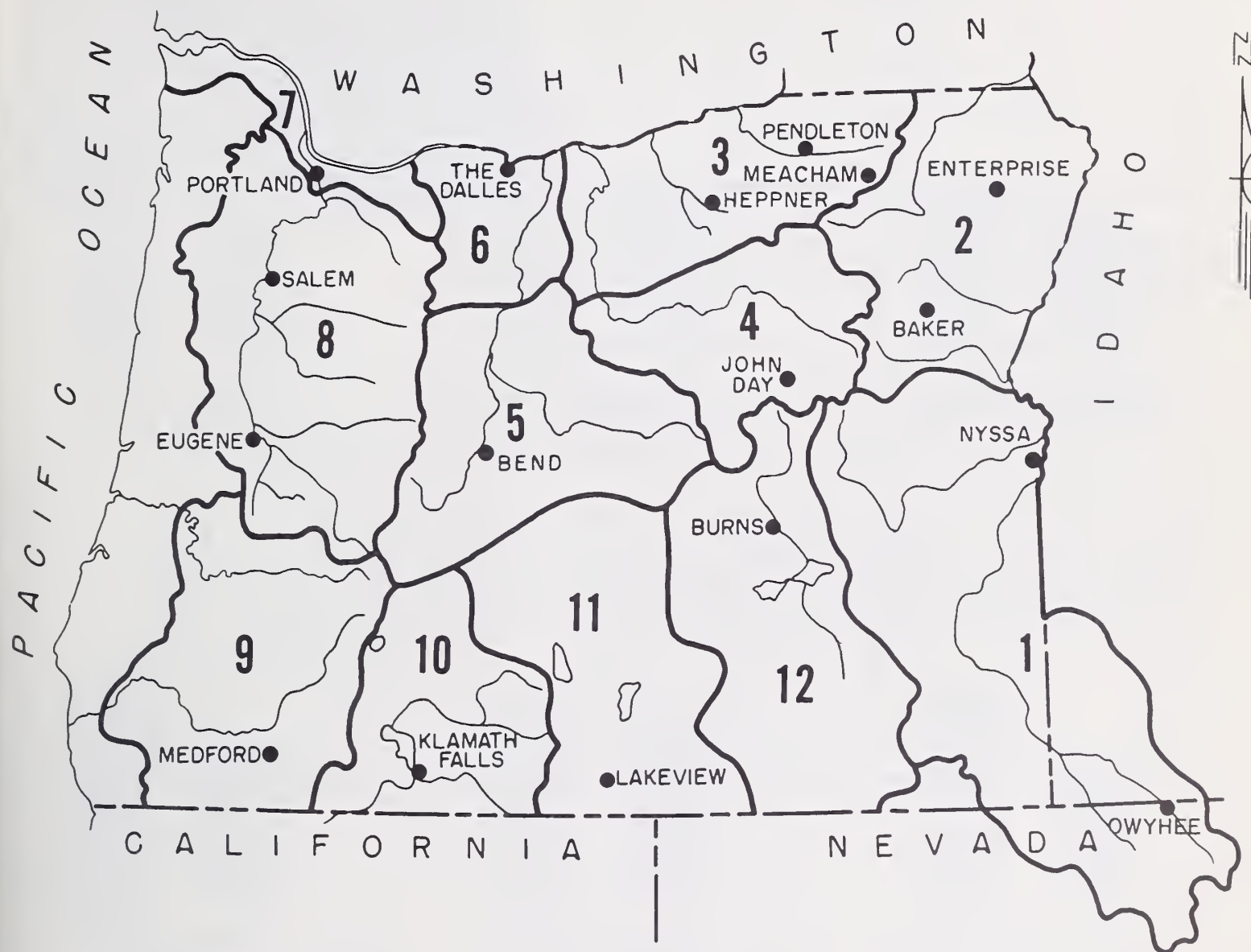


● Soil Moisture Station

**Moisture studies not yet developed in these areas.*

VALLEY PRECIPITATION in OREGON^a

March 1, 1967



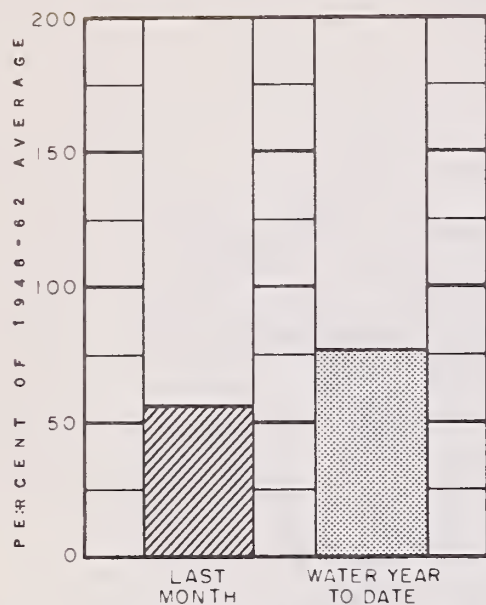
PRECIPITATION as PERCENT of the 1948-62 AVERAGE

STATION	LAST MONTH	WATER YEAR TO DATE ^b	STATION	LAST MONTH	WATER YEAR TO DATE ^b
BAKER APT.	31	104	LAKEVIEW	22	116
BEND	2	96	MEACHAM	54	130
BURNS	38	109	MEDFORD APT.	43	114
ENTERPRISE	17	83	NYSSA	5	89
EUGENE APT.	35	103	PENDLETON APT.	12	105
HEPPNER	15	111	PORTLAND APT.	41	92
JOHN DAY	59	100	SALEM APT.	34	62
KLAMATH FALLS APT.	13	91	THE DALLES	10	82
			OWYHEE (NEV.)	23	78

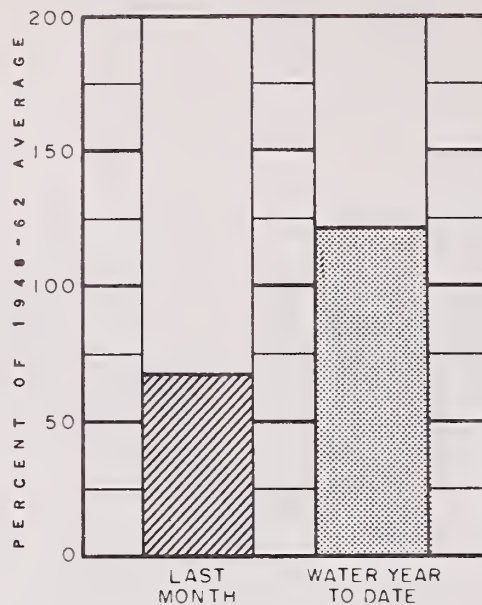
(a) Preliminary data furnished by the U.S. Weather Bureau. (b) Oct. 1 to date. (c) Report delayed.

CURRENT OREGON STREAMFLOW

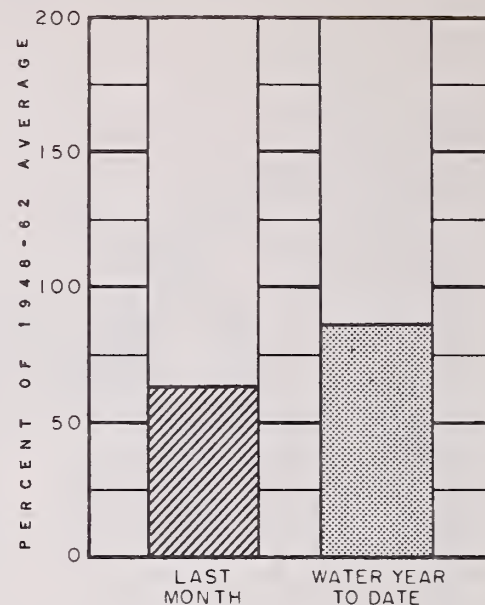
March 1, 1967



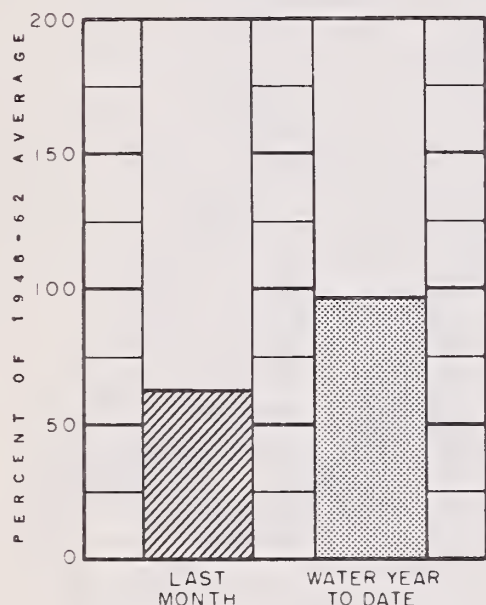
Owyhee Lake net inflow



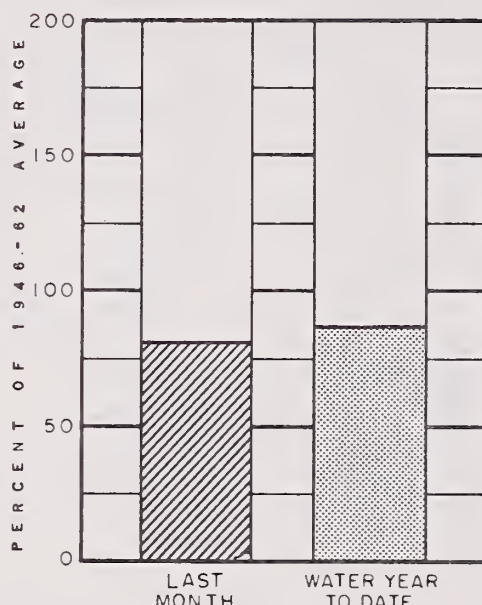
Grande Ronde at Troy



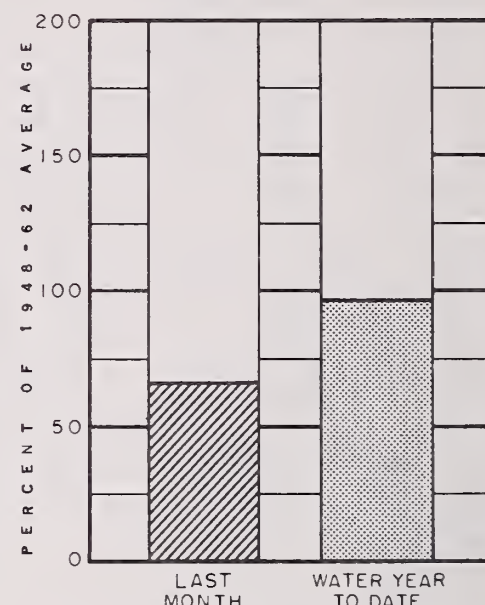
Umatilla at Umatilla



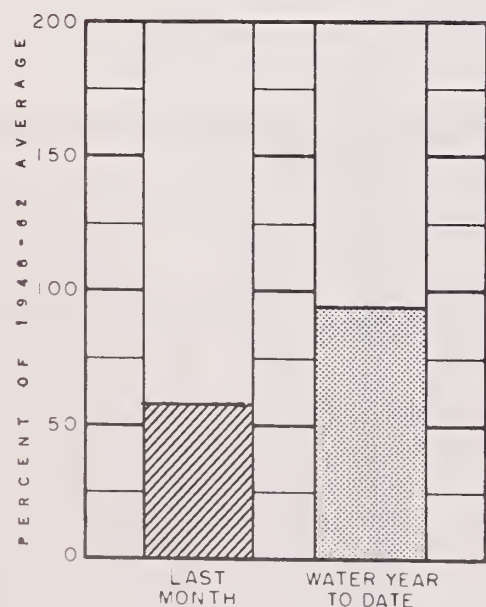
John Day at Service Creek



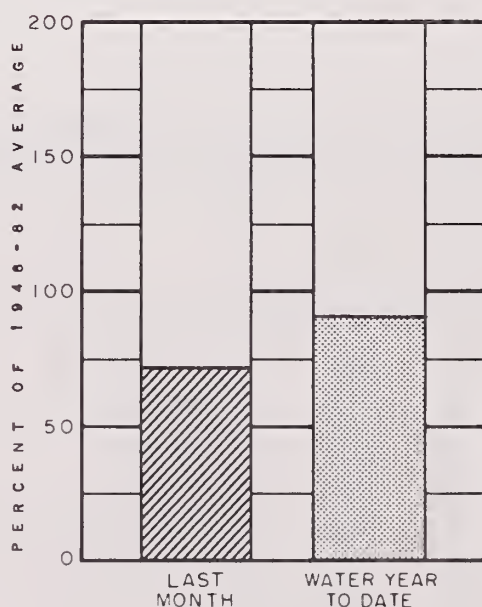
Deschutes at Moody



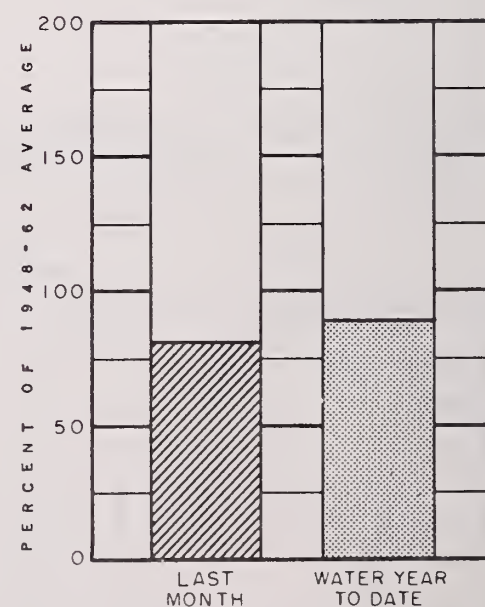
Mid. Fk. Willamette below No. Fk.



Umpqua near Elkton



Rogue at Raygold



Upper Klamath Lake net inflow

Data furnished by U.S. Geological Survey; The Pacific Power and Light Co.;
and North and South Boards of Control Owyhee Project.

WATER SUPPLY OUTLOOK OWYHEE, MALHEUR WATERSHEDS OREGON

as of

March 1, 1967



U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ... OREGON STATE ENGINEER

GENERAL OUTLOOK

In spite of a very dry February most Malheur county water users can expect adequate water supplies this spring and summer. Streamflow is forecast between 79 to 90 percent of the 15-year average (1948-62) but stored water supplies will save the day for most water users. A few irrigators, dependent on natural flow of streams, will have only fair water supplies late in the season.

SNOW COVER

Mountain snowpacks increased only very slightly during February. Water content of the snow cover on Malheur county watersheds is now about 89 percent of the March first average with more snow on the Owyhee than on the Malheur River watersheds. This year's snowpack contains about 40 percent more water than last year's pack on this date.

SOIL MOISTURE

Watershed soils under the snowpack are wetter than usual and will favor runoff from spring snow-melt. Soil moisture in the Malheur drainage was 77 percent of capacity and in the Owyhee about 86 percent. Soils are wetter than last year on this date.

RESERVOIR STORAGE

Reservoired water supplies are very close to average except on the Owyhee where stored water was 363,300 acre feet on March 1 compared with an average of 410,000 a.f. Last year's storage was 585,000 acre feet. This is a reasonable supply for the Owyhee Project.

Total storage in Warm Springs, Agency Valley and Bully Creek reservoirs is 117,200 acre feet compared with 199,000 a.f. last year. This is an adequate stored water supply for the operations of the Warm Springs and Vale-Oregon Irrigation Districts.

Antelope reservoir now contains 16,000 a.f. for the Jordan Valley Irrigation District compared with 7,500 a.f. a year ago.

STREAMFLOW

Flow into Lake Owyhee in the March through July period is forecast at 369,000 acre feet or 79 percent of the 15-year average (1948-62). For the same 5-month period the flow of the Malheur near Drewsey is forecast at 96,000 acre feet or 90 percent average and for Malheur at Beulah 65,000 acre feet, also 90 percent average. Flow of Jordan Creek at the State line is forecast at 120,000 acre feet or 103 percent of the average for the March-July period. The above flows, if realized, together with present stored water, will provide adequate water for a satisfactory irrigation season in 1967 but will reduce water reserves planned for next season.

These forecasts are made with the assumption that near average conditions of temperature and precipitation will prevail from now through the forecast period.

Report prepared by
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PORTLAND, OREGON 97205

WATER SUPPLY OUTLOOK expressed as "Poor", "Fair", "Average" or "Excellent"

STREAM or AREA	FLOW PERIOD	
	SPRING SEASON	LATE SEASON
Boulder Creek	Average	Average
Bully Creek	Fair	Fair
Cow Creek	Average	Average
Jordan Creek	Average	Average
Jordan Valley Irrig. Dist.	Average	Average
McDermitt Creek	Excellent	Average
Oregon Canyon Creek	Excellent	Average
Owyhee Project	Average	Average
Succor Creek	Excellent	Average
Tenmile Creek	Excellent	Average
Vale-Oregon Irrig. Dist.	Average	Average
Warm Springs Irrig. Dist.	Average	Average
Willow Creek (Reservoired)	Average	Fair

RESERVOIR STORAGE (1,000 Ac. Ft.) March 1, 1967

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	1948-62 AVERAGE
Agency Valley	60.0	26.8	29.9	29.3
Antelope	55.0	16.0	7.5	9.8
Bully Creek	30.0	15.0	18.3	- -
Lake Owyhee	715.0	363.3	585.1	410.4
Warm Springs	191.0	75.4	150.9	70.9
Willow Creek #3	26.0			

STREAMFLOW FORECASTS^a (1,000 Ac. Ft.) as of March 1, 1967

FORECAST POINT		FORECAST THIS YEAR	FORECAST PERIOD	1948-62 AVERAGE	THIS YEAR AS PERCENT. OF AVERAGE ⁱ
NO.	NAME				
1780	Jordan Creek above Lone Tree Creek	120	March-July	116	103
2140	Malheur near Drewsey	96	March-July	106	90
		67	April-Sept.	82	82
2175	Malheur, North Fork at Beulah ^d	65	March-July	72	90
		58	April-Sept.	65	89
1825	Owyhee Reservoir net Inflow ^k	369	March-July	466	79
		289	April-Sept.	381	76

SOIL MOISTURE

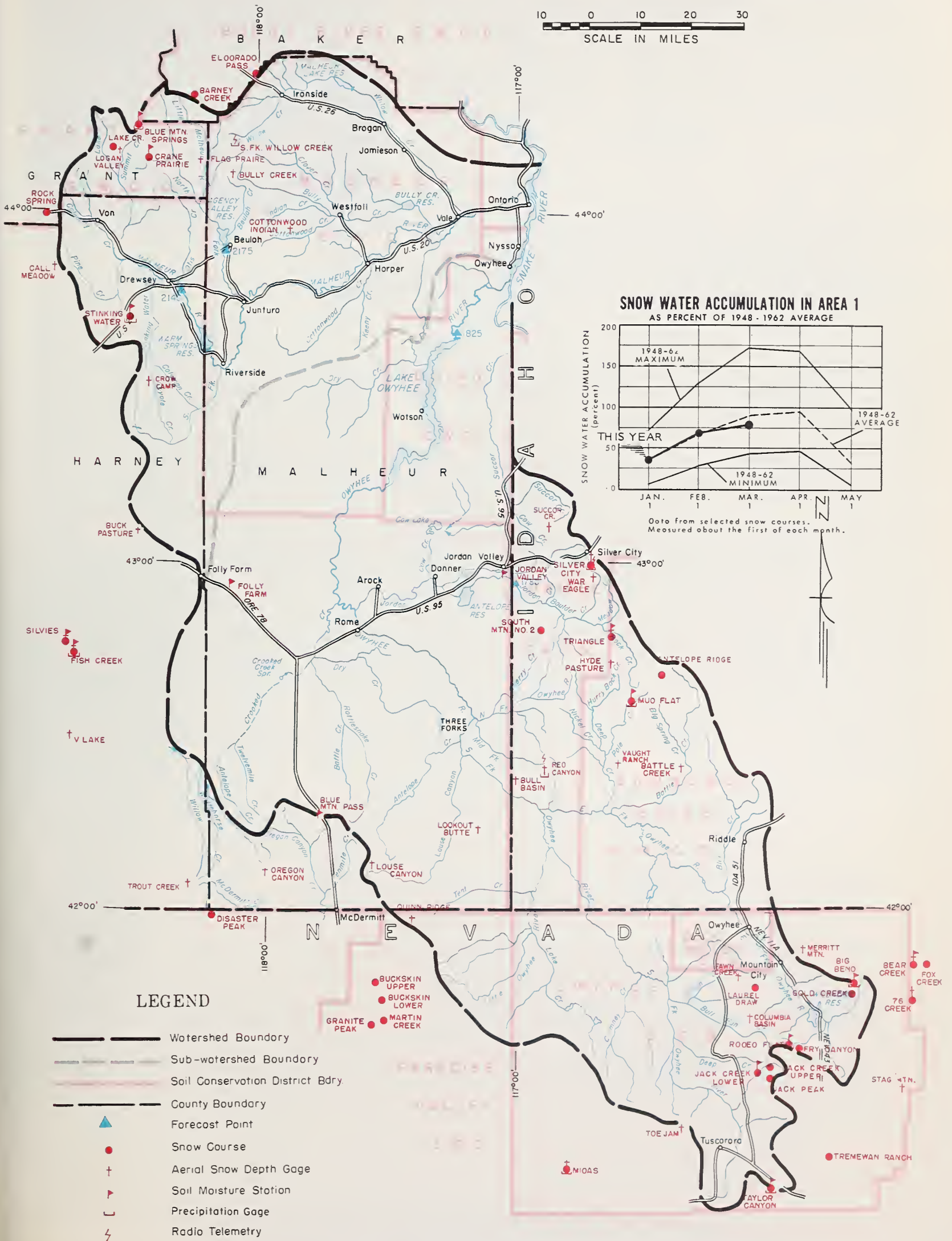
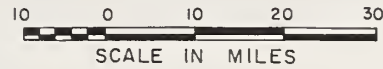
STATION		PROFILE (Inches)		SOIL MOISTURE (Inches)			
		DEPTH	CAPACITY	DATE	THIS YEAR	LAST YEAR	2 YEARS AGO
NAME	ELEVATION						
Bear Creek (Nev.)	7800	72	16.8	2-27-67	8.7	11.0	13.7
Big Bend (Nev.)	6700	48	16.7	2-24-67	15.1	15.1	16.5
Blue Mountain Springs	5900	42	16.9	2-24-67	10.8	7.0	12.6
Crane Prairie	5375	48	18.2	2-24-67	16.2	14.9	17.6
Folly Farm	4450	30	12.5	b			
Jack Creek, Lower (Nev.)	6800	48	8.6	b			
Jordan Valley	4390	48	19.3	b			
Mud Flat (Ida.)	5500	48	12.8	2-27-67	14.4	10.6	13.8
Rodeo Flat (Nev.)	6800	42	11.0	2-24-67	10.5	10.6	11.0
Stinking Water Summit	4800	48	21.9	b			
Taylor Canyon (Nev.)	6200	48	15.1	b			
Triangle (Ida.)	5150	48	16.6	b			

SNOW

SNOW COURSE		CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches)	
NAME	ELEVATION				LAST YEAR	1948-62 AVERAGE
Antelope Ridge (Ida.)	5900	2/27	26	7.5	3.7	- -
Barney Creek	5950	2/28	23	7.6	7.9	7.5 ^h
Battle Creek ^e (Ida.)	5700	2/27	12	3.6	2.4	3.6 ^h
Bear Creek (Nev.)	7800	2/27	51	18.1	11.9	16.6
Big Bend (Nev.)	6700	2/24	25	6.5	5.5	8.5
Blue Mountain Springs	5900	2/24	38	11.6	9.6	15.8
Buck Pasture ^e	5700	2/27	10	3.2	2.7	- -
Buckskin, Lower (Nev.)	6700	2/23	23	7.3	6.3	8.5
Buckskin, Upper (Nev.)	7200	2/23	25	8.6	9.2	7.9
Bull Basin ^e (Ida.)	5600	2/27	T	T	2.2	- -
Bully Creek ^e	5300	2/27	6	1.8	1.6	3.7
Call Meadow ^e	5340	2/27	10	3.2	3.4	- -
Columbia Basin ^e (Nev.)	6650	2/26	27	8.1	5.2	- -

(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1948-62 adjusted average. (i) 1948-62, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (l) Ground measurement. (m) Average for 5 or more years in base period.

OWYHEE, MALHEUR WATERSHEDS



SNOW

SNOW COURSE		CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches)	
NAME	ELEVATION				LAST YEAR	1948-62 AVERAGE
Cottonwood-Indian ^e	4320	2/27	0	0.0	0.3	1.2
Crane Prairie	5375	2/24	27	7.6	7.1	9.4
Crow Camp ^e	5500	2/27	3	0.9	1.0	- -
Disaster Peak (Nev.)	6500	2/27	35	12.4	10.5	14.6
Eldorado Pass	4600	2/27	8	3.0	3.6	3.0 ^h
Fawn Creek ^e (Nev.)	7000	2/26	21	6.5	3.8	- -
Fish Creek ^e	7900	2/27	60	20.4	14.8	- -
Flag Prairie ^e	4750	2/27	15	4.5	3.1	- -
Fox Creek (Nev.)	6800	2/27	30	9.1	8.5	9.4 ^h
Fry Canyon (Nev.)	6700	2/24	23	6.9	6.5	7.8
Gold Creek (Nev.)	6600	2/24	16	4.6	3.1	6.1 ^h
Granite Peak (Nev.)	7800	2/24	42	15.2	6.7	10.9
Hyde Pasture ^e (Ida.)	5800	2/27	19	5.7	2.9	4.9 ^h
Jack Creek, Lower (Nev.)	6800	Not surveyed				
Jack Creek, Upper ^e (Nev.)	7250	2/26	22	6.6	5.5	9.5 ^h
Jack Peak (Nev.)	8420	Not surveyed				
Lake Creek	5120	2/24	28	8.5	6.1	10.5
Laurel Draw ^e (Nev.)	6700	2/23	25	7.7	6.2	7.9 ^h
Logan Valley ^e	5100	2/27	19	5.7	4.9	- -
Lookout Butte ^e	5650	2/27	0	0.0	0.5	- -
Louse Canyon ^e	6440	2/27	24	7.9	6.1	- -
Martin Creek (Nev.)	6700	2/23	36	12.9	6.3	8.9
Merritt Mountain ^e (Nev.)	7000	2/26	30	7.8	T	- -
Midas (Nev.)	7200	2/26	10	3.2	T	4.2 ^h
Mud Flat (Ida.)	5500	2/27	21	5.9	4.4	4.7 ^h
Oregon Canyon ^e	6950	2/27	27	8.9	3.8	- -
Quinn Ridge ^e (Nev.)	6300	2/27	8	2.4	4.9	- -
Red Canyon ^e (Ida.)	6500	2/27	19	5.7	6.5	- -
Rock Spring	5100	2/24	16	5.1	5.1	5.6
Rodeo Flat (Nev.)	6800	2/24	17	4.9	5.0	7.3
76 Creek (Nev.)	7100	2/27	31	9.6	5.9	11.5 ^h
Silver City (Ida.)	6400	2/26	48	15.2	10.0	13.8 ^h
Silvies	6900	3/1	35	12.4	7.2	- -
South Mountain #2 (Ida.)	6340	2/28	36	12.3	5.3	10.6
Stag Mountain ^e (Nev.)	7800	2/26	21	6.1	2.6	- -
Stinking Water	4800	2/27	7	2.1	2.1	3.7 ^h
Succor Creek ^e (Ida.)	6100	2/27	26	7.8	4.3	- -
Taylor Canyon (Nev.)	6200	2/25	23	6.5	5.4	4.6
Toe Jam ^e (Nev.)	7700	2/26	34	10.0	7.5	- -
Tremewan Ranch (Nev.)	5700	2/25	9	3.0	3.0	1.4
Triangle ^e (Ida.)	5150	2/27	T	T	0.2	0.7 ^h
Trout Creek ^e	7800	2/27	30	9.9	5.8	- -
"V" Lake ^e	6600	2/27	20	6.6	3.8	- -
Vaught Ranch ^e (Ida.)	5950	2/27	10	3.0	2.9	- -
War Eagle ^e (Ida.)	7700	2/27	62	20.5	14.4	- -

WATER SUPPLY OUTLOOK BURNT, POWDER, PINE, GRANDE RONDE, IMNAHA WATERSHEDS OREGON

as of

March 1, 1967

U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ... OREGON STATE ENGINEER

GENERAL OUTLOOK

Ranchers, farmers and other water users in Baker, Union and Wallowa counties can expect slightly below average water supplies next spring and summer unless below normal precipitation continues.

SNOW COVER

Water content of the mountain snowpack is about 80 percent of the March first average and about 35 percent greater than last year at this time.

SOIL MOISTURE

Moisture in the watershed soils under the snowpack has increased slightly to 81 percent of capacity compared with only 70 percent of capacity one year ago. The relatively wet soils will favor runoff from snow-melt this spring.

RESERVOIR STORAGE

Stored water in Wallowa Lake is only 10,480 acre feet compared with 31,900 acre feet last year and the average storage of 18,000 a. f. This storage level is nearly as low as the 12,650 a. f. held in 1955 but not as bad as the 6,140 a. f. on hand in 1952.

Unity reservoir on Burnt River contains 12,680 acre feet compared with 13,600 a. f. last year and the average storage of 9,400 a. f.

STREAMFLOW

Flow of Burnt River into Unity reservoir is forecast at 40,000 acre feet for the 4-month period March through June--this will be 82 percent average if realized and will be a sufficient supply for the 1967 season.

Flow of the East Fork of Wallowa River is forecast at 13,000 acre feet March through September or 102 percent of the average. Hurricane Creek, Lostine River, Bear Creek and Imnaha River are forecast to flow 94, 103, 103 and 110 percent average, respectively, in the April-September period.

Elsewhere, Catherine Creek and the main Grande Ronde at La Grande are forecast at 104 and 80 percent, respectively for the six months April through September.

The Powder River is forecast to flow 54,000 acre feet or 80 percent average April through September this season. There will be only fair late-season water supplies on this stream and on the main Grande Ronde this year.

These forecasts are made with the assumption that near average conditions of precipitation and temperature will prevail from this date to the end of the forecast period.

WATER SUPPLY OUTLOOK

expressed as "Poor", "Fair",
"Average" or "Excellent"

RESERVOIR STORAGE (1,000 Ac. Ft.) March 1, 1967

STREAM or AREA	FLOW PERIOD	
	SPRING SEASON	LATE SEASON
Alder Slope	Average	Average
Baker Valley	Average	Fair
Big Creek	Average	Average
Clover Cr. (nr. N. Powder)	Average	Fair
Cove	Average	Average
Durkee	Average	Fair
Eagle Valley	Average	Average
Elgin	Average	Fair
Enterprise-Joseph	Average	Average
Hereford-Bridgeport	Average	Average
Imnaha River	Average	Average
LaGrande-Island City	Average	Fair
Lostine-Wallowa	Average	Average
No. Powder River-Wolf Cr.	Average	Average
Pine Valley	Average	Average
Powder River-Elk Creek	Average	Fair
Summerville	Average	Fair
Sumpter Valley	Average	Fair
Union-Hot Lake	Average	Average
Unity	Average	Average

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	1948-62 AVERAGE
Thief Valley	17.4	b:		
Unity	25.2	12.7	13.6	9.4
Wallowa Lake	37.5	10.5	31.9	18.0

STREAMFLOW FORECASTS^a (1,000 Ac. Ft.) as of March 1, 1967

FORECAST POINT		FORECAST THIS YEAR	FORECAST PERIOD	1948-62 AVERAGE	THIS YEAR AS PERCENT. OF AVERAGE ⁱ
NO.	NAME				
3305	Bear near Wallowa	74	April-Sept.	72	103
2730	Burnt near Hereford ^d	40	March-June	49	82
		37	April-Sept.	41	90
3200	Catherine near Union	76	April-Sept.	73	104
3190	Grande Ronde at La Grande	208	March-July	248	84
		162	April-Sept.	203	80
3295	Hurricane near Joseph	45	April-Sept.	48	94
2920	Imnaha at Imnaha	350	April-Sept.	318	110
3300	Lostine near Lostine	135	April-Sept.	131	103
2755	Powder near Baker	52	April-July	66	79
		54	April-Sept.	67	80
3250	Wallowa, East Fork near Joseph ^d	13.0	March-Sept.	12.7	102
		12.7	April-Sept.	12.0	106

SOIL MOISTURE

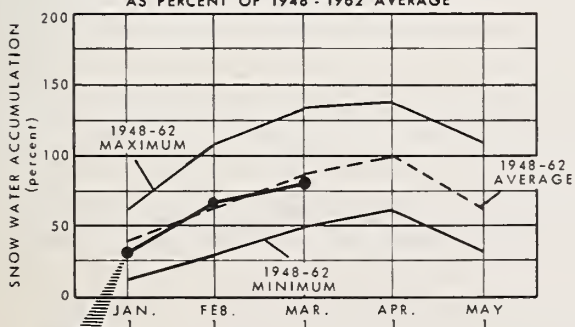
STATION		PROFILE (Inches)		SOIL MOISTURE (Inches)			
		DEPTH	CAPACITY	DATE	THIS YEAR	LAST YEAR	2 YEARS AGO
NAME	ELEVATION						
Blue Mountain Summit	5100	36	16.8	2-27-67	11.9	9.2	14.5
Emigrant Springs	3925	48	22.3	2-25-67	20.2	16.5	21.0
Tollgate	5070	48	23.6	2-24-67	18.8	17.9	19.0

(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1948-62 adjusted average. (i) 1948-62, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.

BURNT, POWDER, PINE, GRANDE RONDE, IMNAHA WATERSHEDS



SNOW WATER ACCUMULATION IN AREA 2
AS PERCENT OF 1948-1962 AVERAGE



THIS YEAR Data from selected snow courses.
Measured about the first of each month.

LEGEND

- Watershed Boundary
- Sub-watershed Boundary
- Soil Conservation District Boundary
- County Boundary
- ▲ Forecast Point
- Snow Course
- † Soil Moisture Station
- † Aerial Snow Depth Gage
- ⌈ Precipitation Gage

SNOW

SNOW COURSE		CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches)	
NAME	ELEVATION				LAST YEAR	1948-62 AVERAGE
Aneroid Lake #1	7480	2/25	93	35.8	26.6	32.4
Aneroid Lake #2	7300	2/25	82	32.4	23.6	29.2
Anthony Lake	7125	2/28	66	25.9	18.0	23.6
Anthony Ski Hill		b				
Bald Mountain ^e (Ore.)	6700	2/24	65	23.7	10.8	- -
Barney Creek	5950	2/28	23	7.6	7.9	7.5
Beaver Reservoir	5340	2/27	32	8.7	8.5	10.1
Big Sheep ^e	6200	2/24	63	23.9	20.4	- -
Blue Mountain Summit	5098	2/27	24	7.3	7.7	8.3
Bourne	5800	2/24	38	11.5	11.6	15.8
County Line	4800	2/27	15	4.9	7.8	7.0 ^h
Dooley Mountain	5430	2/21	26	7.8	4.5	8.6
Eilertson Meadows	5400	2/23	30	10.1	10.4	10.8 ^h
Eldorado Pass	4600	2/27	8	3.0	3.6	3.0 ^h
Gold Center	5340	2/24	34	10.0	10.4	12.5
Goodrich Lake	6775	2/27	86	34.0	27.4	32.0 ^h
Intake House	4930	2/23	32	10.0	9.8	- -
Little Alps	6200	2/28	39	13.0	10.5	- -
Little Antone	5000	2/28	17	5.9	6.3	- -
Lucky Strike	5050	2/23	34	9.9	10.6	11.8 ^h
Meacham	4300	2/27	26	8.4	12.2	9.1
Mirror Lake ^e	8200	2/24	185	70.3	41.0	- -
Moss Springs	5850	2/24	65	22.6	14.0	21.9
Power Plant	3990	2/23	16	4.8	4.9	- -
Schneider Meadows	5400	2/24	73	27.7	17.5	29.2 ^h
Schoolmarm	4775	2/27	13	4.5	7.4	5.9 ^h
Standley ^e	7400	2/24	82	31.2	15.9	- -
Taylor Green	5740	2/24	48	16.0	10.8	- -
Tipton	5100	2/27	26	8.0	8.5	10.0 ^h
Tollgate	5070	2/24	59	20.2	20.3	25.1
TV Ridge ^e	7000	2/24	52	19.8	10.8	- -



WATER SUPPLY OUTLOOK UMATILLA, WALLA WALLA, WILLOW, ROCK, LOWER JOHN DAY WATERSHEDS OREGON

as of
March 1, 1967

U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ... OREGON STATE ENGINEER

GENERAL OUTLOOK

A very dry February, with consequent reduction of the mountain snowpack to about 78 percent of the 15-year average (1948-62) for the Umatilla-Walla Walla watersheds, reduces the water supply outlook for this region to slightly below average for the spring-melt season and only fair for the late season.

SNOW COVER

Water content of the mountain snowpack is 10 to 20 percent below average at Tollgate, Meacham, and Lucky Strike but far below average at Emigrant Springs and Battle Mtn. Summit. There is no snow on the lower elevations as of March first.

SOIL MOISTURE

Moisture in the top four feet of the soil mantle is now 82 percent of capacity compared with 77 percent last year on this date.

RESERVOIR STORAGE

Stored water in McKay reservoir remains low compared with the 15-year average--only 32,100 acre feet compared with 41,000 a. f. average. There is slightly more water in storage now than last year at this time when only 28,100 a. f. were reported. The reservoir is not likely to fill unless unusual rainfall should occur in the near future.

Coldsprings reservoir is up to the average with 39,600 acre feet in storage and is slightly ahead of the 36,400 a. f. held last year on March first.

STREAMFLOW

Flow into McKay reservoir in the March through July period is forecast at 39,000 acre feet or 80 percent of the average. If this flow is realized, a total of 71,100 acre feet, including storage, will be available from the McKay reservoir source. There will be less than this unless temperatures and rainfall are close to or more favorable than average.

Flow of the Umatilla at Pendleton is forecast at 231,000 acre feet or 94 percent of the 15-year average. If realized, this should produce average water supplies for all users.

Butter Creek is forecast to flow 13,000 acre feet or 90 percent average for the same 5-month period, March through July. There may be some unusual shortage of water toward the end of the season.

These forecasts are made with the assumption that near average conditions of temperature and precipitation will prevail from now through the forecast period.

Report prepared by
W. T. FROST AND TOM GEORGE
U. S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE
1218 S.W. WASHINGTON ST.
PORTLAND, OREGON 97205

WATER SUPPLY OUTLOOK

expressed as "Poor", "Fair"
"Average" or "Excellent"

RESERVOIR STORAGE (1,000 Ac. Ft.) March 1, 1967

STREAM or AREA	FLOW PERIOD		RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
	SPRING SEASON	LATE SEASON			THIS YEAR	LAST YEAR	1948-62 AVERAGE
Walla Walla River, No. Fk.	Average	Fair	Cold Springs	50.0	39.6	36.4	39.9
Walla Walla River, So. Fk.	Average	Fair	McKay	73.8	32.1	28.1	41.0
Walla Walla River, Main	Average	Fair					
Walla Walla River, Little	Average	Fair					
Couse Creek	Average	Fair					
Dry Creek	Fair	Fair					
Pine Creek	Fair	Fair					
Umatilla River, Main	Average	Average					
Wildhorse Creek	Fair	Fair					
Umatilla R. (Cold Springs Reservoir)	Average	Average					
Umatilla R. (McKay Res.)	Average	Fair					
McKay Creek	Fair	Fair					
Birch Creek	Fair	Fair					
Butter Creek	Average	Fair					
Willow Creek	Fair	Fair					
Rhea Creek	Fair	Fair					
Rock Creek (John Day tributary)	Fair	Fair					

STREAMFLOW FORECASTS^a(1,000 Ac. Ft.) as of March 1, 1967

FORECAST POINT		FORECAST THIS YEAR	FORECAST PERIOD	1948-62 AVERAGE	THIS YEAR AS PERCENT. OF AVERAGE ⁱ
NO.	NAME				
0320	Butter Creek near Pine City	13.0	March-July	14.5	90
0225	McKay near Pilot Rock	39	March-July	49	80
		27	April-Sept.	32	84
0200	Umatilla near Gibbon	108	March-Sept.	116	93
		87	April-Sept.	93	94
0210	Umatilla at Pendleton	231	March-Sept.	247	94
		174	April-Sept.	183	95
0100	Walla Walla, South Fork near Milton	84	March-Sept.	89	94
		66	April-Sept.	76	87

SOIL MOISTURE

SOIL MOISTURE		PROFILE (Inches)		SOIL MOISTURE (Inches)			
STATION		DEPTH	CAPACITY	DATE	THIS YEAR	LAST YEAR	2 YEARS AGO
NAME	ELEVATION						
Athena-Weston	1700	48	18.7	2-24-67	11.6	14.4	14.0
Battle Mountain Summit	4340	48	13.8	2-23-67	13.8	11.8	13.8
Emigrant Springs	3925	48	22.3	2-25-67	20.2	16.5	21.0
Tollgate	5070	48	23.6	2-24-67	18.8	17.9	19.0

SNOW

SNOW COURSE		CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches)	
NAME	ELEVATION				LAST YEAR	1948-62 AVERAGE
Arbuckle Mountain	5400	2/28	24	7.6	12.2	10.9 ^h
Battle Mountain Summit	4340	2/23	7	1.6	3.2	2.4 ^m
Blue Mountain Camp	4300	2/24	32	10.7	14.6	- -
Emigrant Springs	3925	2/24	10	3.0	9.4	6.2
Lucky Strike	5050	2/23	34	9.9	10.6	11.8 ^h
Meacham	4300	2/27	26	8.4	12.2	9.1
Tollgate	5070	2/24	59	20.2	20.3	25.1
Walla Walla Diversion	2400	2/26	0	0.0	7.0	2.8 ^h
Weston Mountain	2700	2/24	0	0.0	0.1	- -

(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1948-62 adjusted average. (i) 1948-62 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records.

UMATILLA, WALLA WALLA, WILLOW, ROCK, LOWER JOHN DAY WATERSHEDS

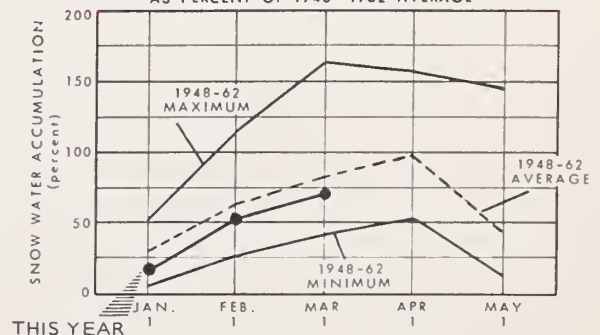
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SCALE IN MILES



LEGEND

- Watershed Boundary
- Sub-watershed Boundary
- Soil Conservation District Bdry.
- County Boundary
- ▲ Forecast Point
- Snow Course
- ▲ Soil Moisture Station
- └ Precipitation Gage

SNOW WATER ACCUMULATION IN AREA 3 AS PERCENT OF 1948 - 1962 AVERAGE



Data from selected snow courses.
Measured about the first of each month.

WATER SUPPLY OUTLOOK UPPER JOHN DAY WATERSHEDS OREGON

as of
March 1, 1967



U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ... OREGON STATE ENGINEER

GENERAL OUTLOOK

Ranchers in the John Day Basin can expect slightly below average water supplies next spring or summer. The poorer outlook is due to a dry February. Some late-season water shortages are expected on Camas Creek and Beech, Fox and Long Creeks which originate in lower elevations.

SNOW COVER

The mountain snowpack failed to increase in normal amounts during February so the water content now is only 82 percent of the 15-year average (1948-62). Low-elevation snow is all gone and cannot contribute to spring season streamflow.

SOIL MOISTURE

Moisture in the watershed soils under the snowpack has increased to 85 percent of capacity compared with 68 percent one year ago. This moisture will favor runoff from snow-melt.

STREAMFLOW

Flow of the John Day at Prairie City for the March through July period is forecast at 53,000 acre feet or 95 percent of the 15-year average (1948-62). Flow of the Middle Fork at Ritter is forecast at 140,000 acre feet or 92 percent average for the same five months.

Although flow of the John Day at Service Creek was only 60 percent of the average figure during February, the total flow from last October first to March first has been 97 percent average according to the U. S. Geological Survey of Portland.

These forecasts are based on the assumption of normal precipitation and temperatures from now until the end of the forecast period.

WATER SUPPLY OUTLOOK

expressed as "Poor", "Fair"
"Average" or "Excellent"

RESERVOIR STORAGE (1,000 Ac. Ft.)

STREAM or AREA	FLOW PERIOD	
	SPRING SEASON	LATE SEASON
Beech Creek	Fair	Fair
Beech Creek-Fox-Long Cr.	Fair	Fair
Bridge-Mountain Creeks	Average	Average
Camas Creek	Fair	Fair
Cherry Creek	Average	Fair
Indian-Pine Creeks	Average	Average
John Day River, Main Fork	Average	Average
John Day River, Mid. Fork	Average	Average
John Day River, N. Fork	Average	Average
John Day River, So. Fork	Average	Average
Monument-Kimberly	Average	Average
Strawberry Creek	Average	Average

[illegible]

STREAMFLOW FORECASTS^a(1,000 Ac. Ft.)

FORECAST POINT		FORECAST THIS YEAR	FORECAST PERIOD	1948-62 AVERAGE	THIS YEAR AS PERCENT OF AVERAGE
NO.	NAME				
0385	John Day at Prairie City	53	March-July	56	95
0440	John Day, Middle Fork at Ritter	47	April-Sept.	51	92
		140	March-July	153	92
		117	April-Sept.	131	89
0375	Strawberry near Prairie City	7.0	March-July	8.2	85
		7.4	April-Sept.	8.8	84

SOIL MOISTURE

SOIL MOISTURE		PROFILE (Inches)		SOIL MOISTURE (Inches)			
STATION		DEPTH	CAPACITY	DATE	THIS YEAR	LAST YEAR	2 YEARS AGO
NAME	ELEVATION						
Battle Mountain Summit	4340	48	13.8	2-23-67	13.8	11.8	13.8
Blue Mountain Springs	5900	42	16.9	2-24-67	10.8	7.0	12.6
Blue Mountain Summit	5100	36	16.8	2-27-67	11.9	9.2	14.5
Derr	5670	24	9.0	2-27-67	8.0	6.9	8.9
Marks Creek	4540	36	14.1	2-28-67	13.7	11.6	13.7
Snow Mountain	6300	48	16.7	2-27-67	14.8	12.2	16.5
Starr Ridge	5150	36	10.6	2-23-67	10.4	7.9	10.4

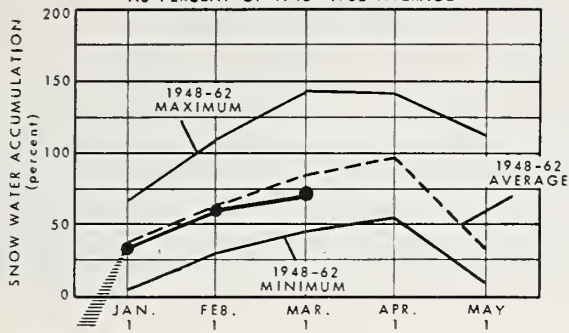
SNOW

SNOW COURSE		CURRENT INFORMATION			PAST RECORD	
NAME	ELEVATION	DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches)	
					LAST YEAR	1948-62 AVERAGE
Anthony Lake	7125	2/28	66	25.9	18.0	23.6
Arbuckle Mountain	5400	2/28	24	7.6	12.2	10.9 ^h
Battle Mtn. Summit	4340	2/23	7	1.6	3.2	2.4 ^m
Beech Creek Summit	4800	2/27	13	3.7	5.4	5.6
Blue Mountain Springs	5900	2/24	38	11.6	9.6	15.8
Blue Mountain Summit	5098	2/27	24	7.3	7.7	8.3
Derr	5670	2/27	25	8.2	9.7	9.6 ^h
East Fork Canyon ^e	5700	3/4	27	8.1	8.4	- -
Gold Center	5340	2/24	34	10.0	10.4	12.5
Indian Creek Butte ^e	6550	3/4	78	23.4	15.1	- -
Izee Summit	5293	2/23	24	6.7	7.5	8.0
Lucky Strike	5050	2/23	34	9.9	10.6	11.8 ^h
Marks Creek	4540	2/28	7	3.3	6.8	3.7
Ochoco Meadows	5200	2/27	28	8.9	10.6	10.1
Olive Lake	6000	2/26	51	16.4	14.3	18.3
Schoolmarm	4775	2/27	13	4.5	7.4	5.9 ^h
Snow Mountain	6300	2/27	37	12.6	9.9	- -
Starr Ridge	5150	2/23	16	4.7	4.7	5.6
Tipton	5100	2/27	26	8.0	8.5	10.0 ^h
Williams Ranch	4500	3/4	0	0.0	3.0	- -

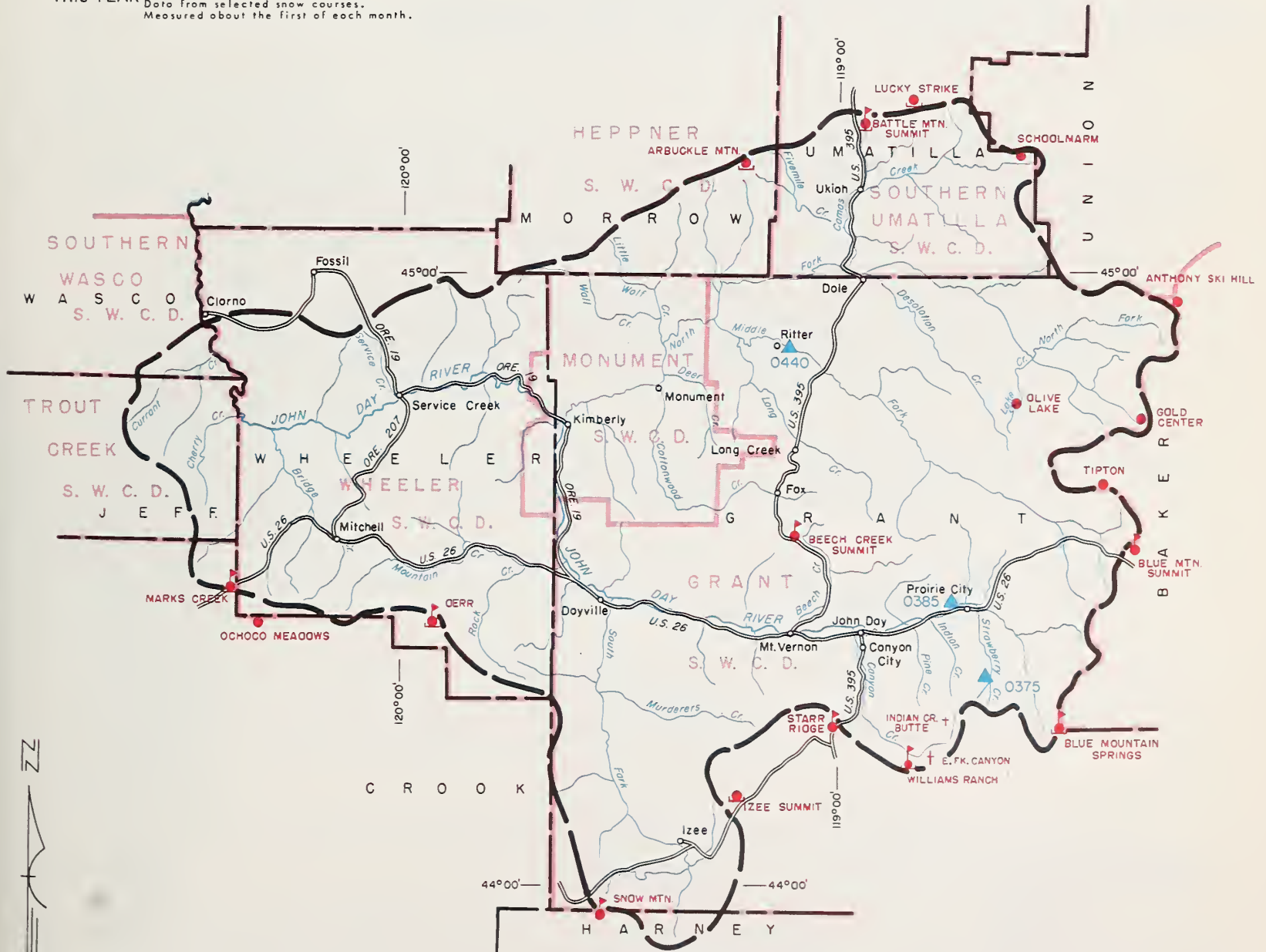
(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1948-62 adjusted average. (i) 1948-62, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.

UPPER JOHN DAY WATERSHEDS

SNOW WATER ACCUMULATION IN AREA 4
AS PERCENT OF 1948 - 1962 AVERAGE



THIS YEAR Data from selected snow courses.
Measured about the first of each month.



LEGEND

- Watershed Boundary
- - - Sub-watershed Boundary
- Soil Conservation District Bdry.
- County Boundary
- ▲ Forecast Point
- Snow Course
- ▼ Soil Moisture Station
- † Aerial Snow Depth Gage
- Precipitation Gage

WATER SUPPLY OUTLOOK UPPER DESCHUTES, CROOKED WATERSHEDS OREGON

as of

March 1, 1967

U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ... OREGON STATE ENGINEER

GENERAL OUTLOOK

Ranchers, farmers, and other water users in Crook, Deschutes and Jefferson counties can expect slightly below average water supplies next spring and summer. Warmer than normal temperatures and much below average precipitation in February dimmed the water outlook. Average winter conditions must prevail in March or the outlook can be expected to worsen.

SNOW COVER

Water content of the mountain snowpack in the mid-state watersheds is about 87 percent of the 15-year average (1948-62) for March first. There is about 15 percent less snow now than was measured a year ago.

SOIL MOISTURE

Moisture in the soil mantle under the snowpack in the upper watersheds is about 92 percent of capacity compared with 77 percent on March first last year. This moisture will greatly favor runoff yet to come from snow-melt.

RESERVOIR STORAGE

The Crooked River reservoirs, Prineville and Ochoco, now hold 96,100 and 23,500 acre feet respectively. This is almost the same as last year's storage on March first.

Deschutes River reservoirs hold less water than last year. Wickiup has 155,000 acre feet in storage compared with 190,300 a. f. last year. Crane Prairie has 41,100 acre feet in storage compared with 47,000 last year. Crescent Lake holds 54,300 acre feet compared with 62,700 a year ago.

STREAMFLOW

Forecasts of expected streamflow for 1967 in the April-September period are:

<u>Stream</u>	<u>Volume</u>	<u>Percent of 1948-62 Average</u>
Crooked R. above Prineville Res.	113,000 acre feet	90%
Ochoco Reservoir inflow	28,000 acre feet	88%
Little Deschutes near Lapine	92,000 acre feet	81%
Deschutes R. near Benham Falls	612,000 acre feet	97%
Tumalo Creek near Bend	49,000 acre feet	91%
Squaw Creek near Sister	51,000 acre feet	91%

These forecasts are made with the assumption that near average conditions of temperature and precipitation will prevail from now until the end of the forecast period.

WATER SUPPLY OUTLOOK expressed as "Poor", "Fair", "Average" or "Excellent"

STREAM or AREA	FLOW PERIOD	
	SPRING SEASON	LATE SEASON
Arnold Irrigation District	Average	Average
Bear Creek	Average	Average
Beaver Creek	Average	Average
Camp Creek	Average	Average
Central Ore. Irrig. Dist.	Average	Average
Crooked River	Average	Average
Deschutes River	Average	Average
Hay-Trout Creeks	Average	Fair
Lone Pine Irrig. Dist.	Average	Average
Mill Creek	Average	Fair
North Unit Irrig. Dist.	Average	Fair
Ochoco Creek	Average	Average
Sisters Irrigation Dist.	Average	Average
Snow Creek Irrig. Dist.	Average	Fair
Squaw Creek Irrig. Dist.	Average	Average
Swalley Ditch	Average	Average
Tumalo Project	Average	Average
Walker Basin Irrig. Dist.	Average	Average

RESERVOIR STORAGE (1,000 Ac. Ft.) March 1, 1967

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	1948-62 AVERAGE
Crane Prairie	55.3	41.1	47.0	45.3
Crescent Lake	86.0	54.3	62.7	45.7
Ochoco	47.5	23.5	24.2	26.6
Prineville	153.0	96.1	96.0	- -
Wickiup	200.0	155.0	190.3	176.9

STREAMFLOW FORECASTS^a(1,000 Ac. Ft.) as of March 1, 1967

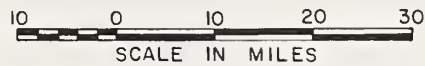
FORECAST POINT		FORECAST THIS YEAR	FORECAST PERIOD	1948-62 AVERAGE	THIS YEAR AS PERCENT. OF AVERAGE ⁱ
NO.	NAME				
0535	Crane Prairie Reservoir total Inflow	95	March-July	109	87
		125	April-Sept.	143	87
0600	Crescent at Crescent Lake ^d	26	March-July	30	87
		28	April-Sept.	33	85
0795	Crooked near Post above Prineville Reservoir	152	March-July	169	90
		113	April-Sept.	125	90
0645	Deschutes at Benham Falls ^d	400	April-July	417	96
		612	April-Sept.	631	97
0500	Deschutes below Snow Creek	73	March-Sept.	82	89
		64	April-Sept.	75	85
0630	Deschutes, Little near Lapine ^d	92	March-July	115	80
		92	April-Sept.	113	81
0848	Ochoco Reservoir net Inflow	38	March-July	42	90
		28	April-Sept.	32	88
0555	Odell near Crescent	30	April-Sept.	34	88
0750	Squaw near Sisters	51	April-Sept.	56	91
0730	Tumalo near Bend ^d	49	April-Sept.	54	91

SOIL MOISTURE

STATION		PROFILE (Inches)		SOIL MOISTURE (Inches)			
		DEPTH	CAPACITY	DATE	THIS YEAR	LAST YEAR	2 YEARS AGO
NAME	ELEVATION						
Derr	5670	24	9.0	2-27-67	8.0	6.9	8.9
Marks Creek	4540	36	14.1	2-28-67	13.7	11.6	13.7
Snow Mountain	6300	48	16.7	2-27-67	14.8	12.2	16.5

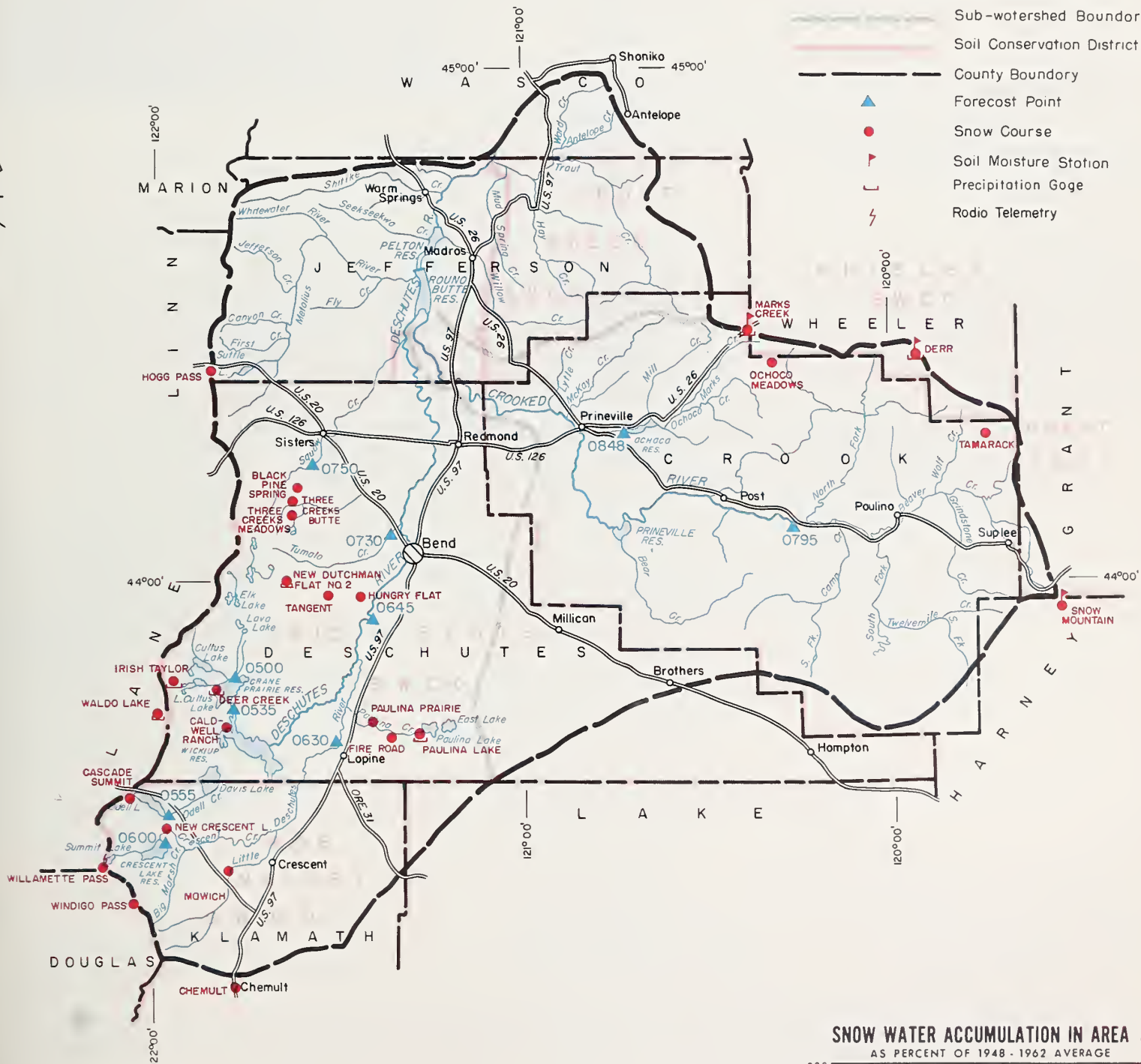
(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1948-62 adjusted average. (i) 1948-62, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.

UPPER DESCHUTES, CROOKED WATERSHEDS

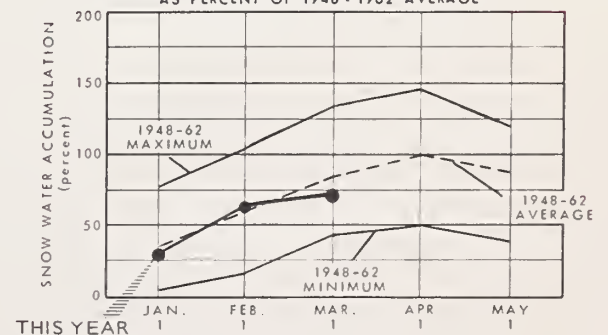


LEGEND

- Watershed Boundary
- Sub-watershed Boundary
- Soil Conservation District Bdry
- County Boundary
- ▲ Forecast Point
- Snow Course
- ▼ Soil Moisture Station
- ⌋ Precipitation Gage
- ⚡ Radio Telemetry



SNOW WATER ACCUMULATION IN AREA 5
AS PERCENT OF 1948-1962 AVERAGE



Data from selected snow courses.
Measured about the first of each month.

Upper Deschutes, Crooked Watersheds

SNOW

SNOW COURSE		CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches)	
NAME	ELEVATION				LAST YEAR	1948-62 AVERAGE
Black Pine Spring	4600	2/21	2	0.8	6.6	5.0 ^h
Caldwell Ranch	4400	2/24	26	9.7	11.5	- -
Cascade Summit	4880	2/28	70	24.0	28.2	28.9
Chemult	4760	2/28	32	9.8	12.6	11.4
Deer Creek	4554	2/24	47	15.2	17.1	- -
Derr	5670	2/27	25	8.2	9.7	9.6 ^h
Fire Road	5050	2/23	19	6.0	7.3	6.5 ^h
Hogg Pass	4755	3/1	90	33.3	43.8	39.4
Hungry Flat	4400	3/1	16	5.9	9.7	6.3 ^h
Irish Taylor	5500	2/24	88	31.6	30.3	- -
Marks Creek	4540	2/28	7	3.3	6.8	3.7
Mowich	4700	2/27	17	7.0	8.7	5.4 ^h
New Crescent Lake	4800	2/27	38	13.1	14.4	15.7 ^h
New Dutchman Flat #2	6400	3/1	111	45.5	46.3	46.8
Ochoco Meadows	5200	2/27	28	8.9	10.6	10.1
Paulina Lake	6330	2/23	53	18.0	16.5	18.7 ^h
Paulina Prairie	4285	2/23	4	1.6	5.4	1.1 ^h
Snow Mountain	6300	2/27	37	12.6	9.9	- -
Tamarack	4800	2/28	14	4.4	7.4	5.8
Tangent	5400	3/1	54	18.9	24.1	22.1 ^h
Three Creeks Butte	5200	2/21	22	8.1	12.9	11.5 ^h
Three Creeks Meadows	5650	2/21	39	13.1	18.5	19.9
Waldo Lake	5500	2/28	74	25.3	22.8	- -
Willamette Pass	5600	2/27	97	34.7	36.3	37.7 ^h
Windigo Pass	5800	2/28	90	32.8	35.2	39.3 ^h



WATER SUPPLY OUTLOOK HOOD, MILE CREEKS, LOWER DESCHUTES WATERSHEDS OREGON

as of

March 1, 1967

U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ... OREGON STATE ENGINEER

GENERAL OUTLOOK

The water supply prospects for the Hood River Wasco area have deteriorated from last months below average forecast to a current outlook that is only fair. Because a dry February has reduced the snowpack to 81% of average the streamflow forecasts for the area have dropped to 70% to 75% of the 1948-62 average.

SNOW COVER

Water content of the mountain snowpack is 81% of average compared to 86% of average last month and 111% of average last year. Low and median elevation snow is especially deficient because much of the winter precipitation fell in the form of rain rather than snow.

SOIL MOISTURE

Soils are apparently wetted through the profile as a result of the aforementioned rain. This condition should enhance the runoff from the snowpack.

RESERVOIR STORAGE

Wasco reservoir commonly know as Clear Lake currently contains 2,300 acre feet. This compares to 1,700 acre feet last year on March 1.

STREAMFLOW

Streamflow forecasts have been reduced from last months figures and now range from 25% to 30% below the April to September 1948-62 average.

They are as follows:

<u>Station</u>	<u>Volume</u>	<u>Percent of 1948-62 Average</u>
Hood River nr. Hood River	288,000 acre feet	75 percent
Hood, West Fork nr. Dee	127,000 acre feet	71 percent
White below Tygh Valley	131,000 acre feet	74 percent

These forecasts are made with the assumption that normal precipitation and temperatures will occur from now until the end of the forecast period.

WATER SUPPLY OUTLOOK

expressed as "Poor", "Fair"
"Average" or "Excellent"

STREAM or AREA	FLOW PERIOD	
	SPRING SEASON	LATE SEASON
Aldridge Ditch (Tony Creek)	Fair	Fair
Badger Creek	Fair	Fair
Dee Irrigation District	Fair	Fair
East Fork Irrig. Dist.	Fair	Fair
Farmers Irrigation Dist.	Fair	Fair
Hood River Irrig. Dist.	Fair	Fair
Juniper Flat	Fair	Fair
Middle Fork Irrig. Dist.	Fair	Fair
Mile Creeks	Fair	Fair
Mill Creek	Fair	Fair
Mount Hood Irrig. Dist.	Fair	Fair
Rock-Gate-Threemile Crs.	Fair	Fair
Tygh Creek	Fair	Fair
White River	Fair	Fair

RESERVOIR STORAGE (1,000 Ac. Ft.) March 1, 1967

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	1948-62 AVERAGE
Clear Lake	11.9	2.3	1.7	- -

STREAMFLOW FORECASTS^a(1,000 Ac. Ft.) as of March 1, 1967

FORECAST POINT		FORECAST THIS YEAR	FORECAST PERIOD	1948-62 AVERAGE	THIS YEAR AS PERCENT. OF AVERAGE ⁱ
NO.	NAME				
1210	Hood near Hood River ^d	245	April-July	322	76
		288	April-Sept.	381	75
1185	Hood, West Fork near Dee	114	April-July	155	74
		127	April-Sept.	179	71
1015	White below Tygh Valley	115	April-July	158	73
		131	April-Sept.	176	74

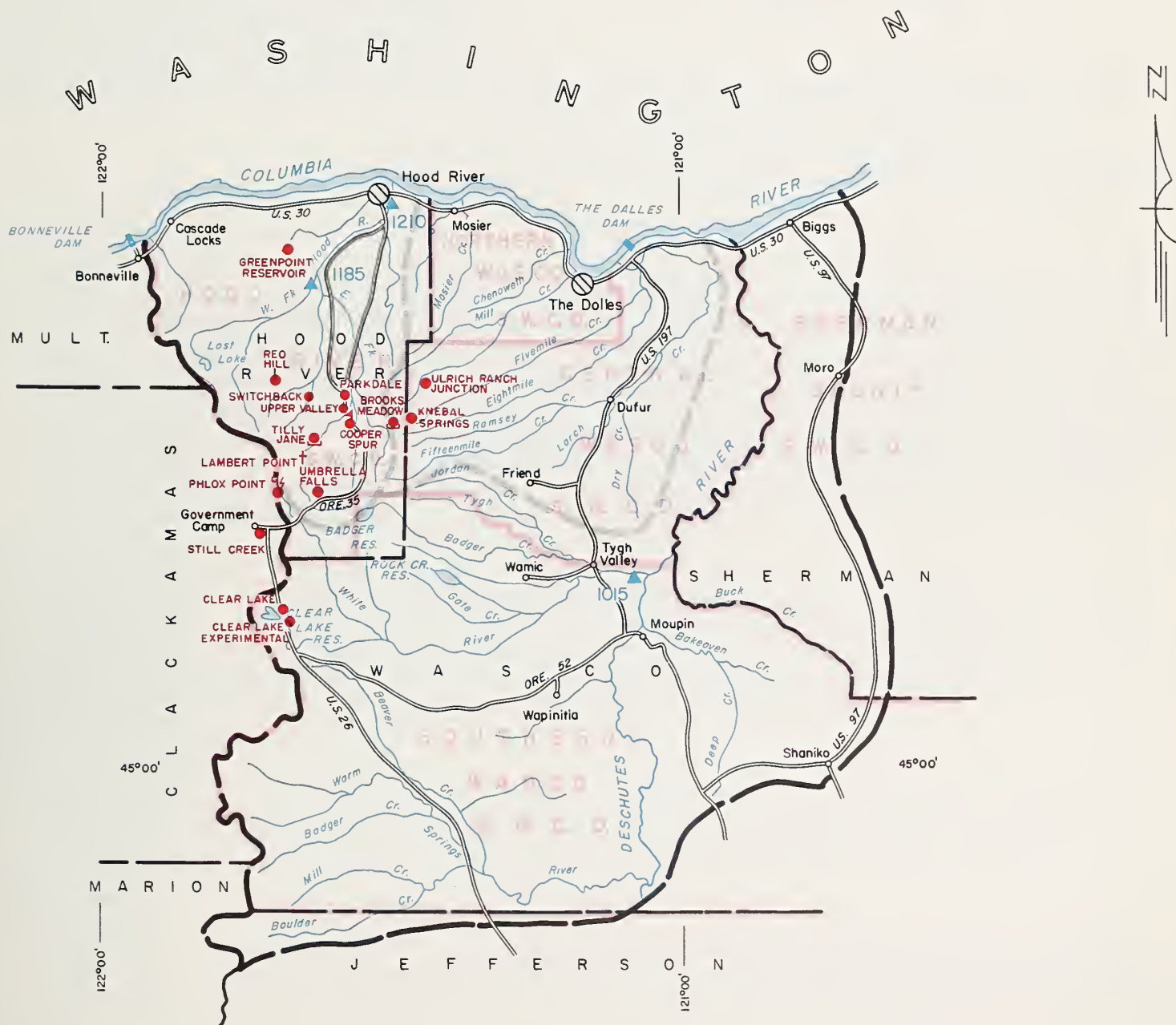
SNOW

SNOW COURSE		CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches)	
NAME	ELEVATION				LAST YEAR	1948-62 AVERAGE
Brooks Meadows	4300	3/1	25	9.8	19.2	- -
Clear Lake	3500	2/28	15	5.2	17.1	11.9
Clear Lake (Experimental)	3500	2/28	32	11.6	21.2	21.1
Cooper Spur	3490	2/28	17	6.7	16.1	- -
Greenpoint Reservoir	3400	2/23	25	10.4	24.0	15.1
Knebal Springs	3850	3/1	12	4.6	- -	- -
Lambert Point	7000	b				
Parkdale	1770	2/28	0	0.0	T	- -
Phlox Point	5400	2/27	126	55.3	56.1	57.1
Red Hill	4400	2/28	72	28.4	42.0	40.4
Still Creek	3670	2/27	41	16.8	28.2	23.0
Switchback	3255	2/28	14	5.8	22.8	- -
Tilly Jane	6000	2/24	84	32.8	38.7	38.7
Ulrich Ranch Junction	3350	3/1	0	0.0	- -	- -
Umbrella Falls	5400	3/3	144	56.0	- -	- -
Upper Valley	2530	2/28	0	0.0	9.3	- -

(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1948-62 adjusted average. (i) 1948-62, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.

HOOD, MILE CREEKS, LOWER DESCHUTES WATERSHEDS

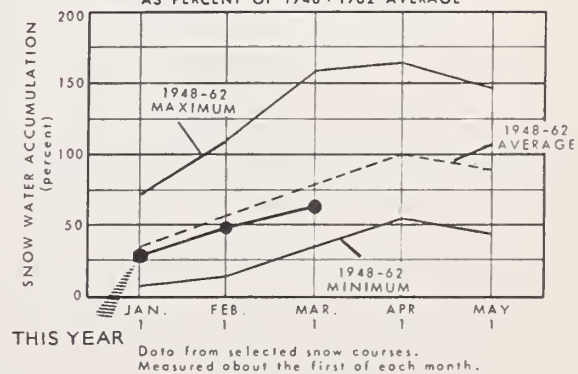
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SCALE IN MILES



LEGEND

- Watershed Boundary
- - - Sub-watershed Boundary
- Soil Conservation District Bdry.
- - - County Boundary
- ▲ Forecast Point
- Snow Course
- † Aerial Snow Depth Gage
- ▤ Soil Moisture Station
- └ Precipitation Gage
- Ⓟ Temperature Gage
- ⚡ Radio Telemetry

SNOW WATER ACCUMULATION IN AREA 6 AS PERCENT OF 1948-1962 AVERAGE



Hood, Mile Creeks, Lower Deschutes Watersheds



WATER SUPPLY OUTLOOK LOWER COLUMBIA WATERSHEDS OREGON

as of

March 1, 1967

U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ... OREGON STATE ENGINEER

GENERAL OUTLOOK

Water supply outlook is generally satisfactory over the Columbia Basin and tributaries for 1967. There was a slight decline in streamflow prospects in March. The Snake River and tributaries in Idaho will have near average flows with slightly above average flow in prospect for the Henry's Fork, Lost and Wood Rivers. All streams in Oregon are forecast for slightly below average for 1967. Relatively heavy flows remain in prospect for the Columbia, Kootenai and Clark Fork in the upper Basin. The flow of the upper Columbia in Canada may equal or exceed any flow of the past 25 years. With average or less flow in prospect for the Snake and lower basin streams, the flow at The Dalles will probably not exceed 110 percent of average.

SNOW COVER

Snow cover is now slightly less than average over most of the basin. However, for the principal water producing areas in Canada and northwest Montana, the snowpack at high elevations is near the maximum of record extending back twenty-five to thirty years. With this excessive high elevation snowpack, it is anticipated that late summer flow will be much above average.

SOIL MOISTURE

Soil moisture under the snow is somewhat deficient along the Continental Divide and near average for most of the basin. February precipitation was deficient. Valley soils are drier than usual. This may have a slight effect on early irrigation demands if the dry pattern persists through March and early April.

STREAMFLOW

The flow of the Columbia and tributaries were generally below average again in February. January flows were slightly above average for the first time in over a year. The record by months for the 1967 water year for the Columbia at The Dalles is as follows:

<u>Month</u>	<u>Percent of Average Discharge (1948-62)</u>
October	79 (Adjusted for storage)
November	80 (Adjusted for storage)
December	96 (Adjusted for storage)
January	109 (Adjusted for storage)
February	88 (Adjusted for storage)

* Preliminary data furnished by Current Records Center, U. S. Geological Survey, Portland, Oregon.

STREAMFLOW FORECASTS^a(1,000 Ac. Ft.) as of March 1, 1967

FORECAST POINT		FORECAST THIS YEAR	FORECAST PERIOD	1948-62 AVERAGE	THIS YEAR AS PERCENT OF AVERAGE ⁱ
NO.	NAME				
1057	Columbia at The Dalles	83,000 118,000	April-June April-Sept.	74,100 108,500	111 109

HISTORICAL DATA (Columbia River at The Dalles)

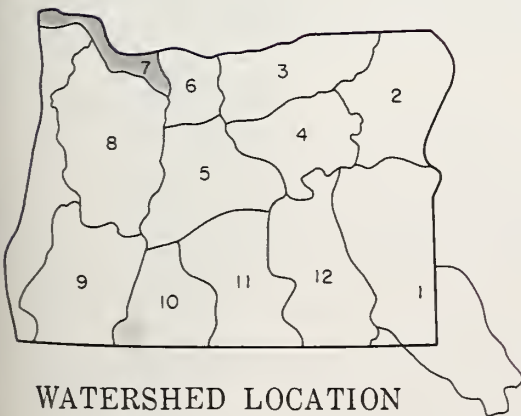
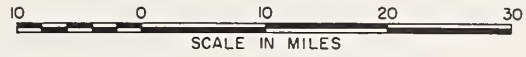
YEAR	STREAMFLOW ^d (1,000 A.F.)			PEAK (1,000 c.f.s.)	DATE
	APR. — SEPT.	APR. — JUNE	MAY — JUNE		
1943	115,000	75,300	52,400	541	June 21
1944	61,900	39,200	32,100	326	June 19
1945	81,600	54,600	47,300	505	June 8
1946	108,100	75,400	59,600	581	May 30
1947	100,300	70,000	56,800	536	May 11
1948	130,500	94,600	81,900	999	May 31
1949	95,700	71,400	56,000	622	May 18
1950	120,400	74,700	61,200	744	June 25
1951	113,000	75,600	59,100	597	May 26
1952	107,700	77,500	57,300	557	May 28
1953	100,600	64,900	55,800	609	June 17
1954	119,500	70,500	59,300	561	May 23
1955	99,500	58,300	50,300	545	June 26
1956	131,400	96,900	75,800	815	June 3
1957	105,700	80,500	67,200	700	May 22
1958	97,700	72,000	58,600	593	May 31
1959	112,500	71,900	58,900	555	June 23
1960	97,000	64,000	48,000	442	June 6
1961	101,400	74,400	64,000	699	June 8
1962	94,600	64,100	49,200	460	June 5
1948-62 Avg.	108,500	74,100	60,200	633	
1963	87,000	56,300	46,200	437	June 18
1964	109,020	70,739	61,313	662	June 18

LOWER COLUMBIA RIVER FLOOD STAGES (with 9.5' tide at Astoria)

VANCOUVER GAGE (Weather Bu.)	FLOW AT THE DALLES (1,000 c.f.s.)	DRAINAGE DISTRICT PUMPHOUSE						
		SANDY	SAUVIE ISL.	SCAPPOOSE	DEER ISL.	RAINIER	BEAVER	WOODSON
		RIVER MILES						
		118.9	96.0	91.0	77.0	62.0	52.0	47.0
35 (1894)	1210	41.2	34.2	33.3	28.5	21.9	17.5	15.5
34	1160	40.5	33.5	32.5	27.7	21.2	17.0	15.0
33	1100	39.6	32.4	31.4	26.7	20.2	16.1	14.3
32	1050	38.9	31.5	30.5	25.7	19.5	15.4	13.7
31 (1948)	1000	38.0	30.7	29.5	25.1	18.8	14.7	13.0
30	943	36.6	29.5	28.5	24.3	18.1	14.0	12.4
29	897	35.5	28.5	27.7	23.7	17.5	13.4	11.8
28	853	34.3	27.5	26.7	22.8	17.0	13.0	11.4
27 (1956)	811	33.0	26.5	25.6	21.8	16.2	12.5	11.0
26 (1950)	771	32.1	25.5	24.6	20.9	15.5	12.2	10.7
25	733	30.7	24.2	23.2	19.7	14.6	11.7	10.3
24	697	29.7	23.0	22.2	19.0	14.1	11.4	10.2
23	662	29.0	22.3	21.4	18.4	13.6	11.2	10.0
22	628	28.1	21.4	20.3	17.2	13.0	10.9	9.7
21	595	27.2	20.7	19.5	16.4	12.6	10.6	9.6
20 (1954)	564	26.2	19.8	18.6	15.5	12.1	10.2	9.4
19	534	25.5	19.2	18.0	15.0	11.8	10.0	9.3
18	501	24.4	18.3	17.2	14.3	11.4	9.8	9.1
17	479	23.4	17.4	16.4	13.7	11.0	9.6	8.9
16	452	22.4	16.5	15.5	13.0	10.5	9.3	8.7

(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1948-62 adjusted average. (i) 1948-62, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records.

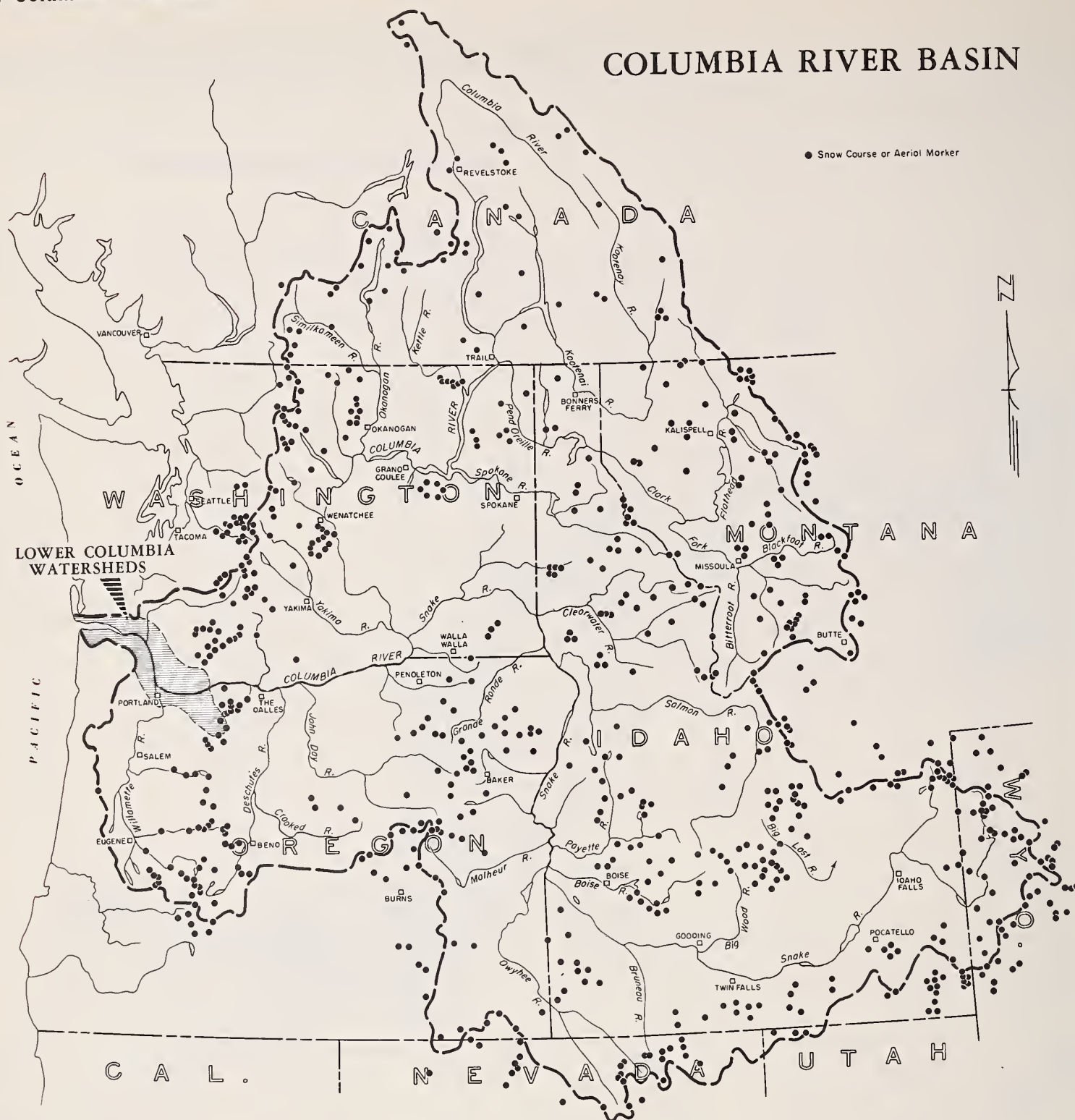
LOWER COLUMBIA WATERSHEDS



LEGEND

- Watershed Boundary
- Sub-watershed Boundary
- Soil Conservation District Bdry.
- County Boundary
- 50 River Miles
- Snow Course
- 9 Temperature
- ⚡ Radio Telemetry

COLUMBIA RIVER BASIN



"The Conservation of Water begins with the Snow Survey"



WATER SUPPLY OUTLOOK WILLAMETTE WATERSHEDS OREGON

as of
March 1, 1967

U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ... OREGON STATE ENGINEER

GENERAL OUTLOOK

Irrigators and other water users in the Willamette Valley can expect slightly below average water supplies for the coming seasons. However, water supplies on streams which originate at lower elevations will be only fair during late summer.

SNOW COVER

Due to an extremely dry February, water content of the mountain snowpack increased only slightly at most locations while some lower elevation measurements recorded decreases. The snow cover is currently 87% of average compared to 97% of average last month.

SOIL MOISTURE

Soils beneath the snowpack are well wetted and should not detract from snow melt runoff.

RESERVOIR STORAGE

Contents of the multiple-purpose reservoirs in the Willamette Valley are close to average for this time of the year. Timothy Lake on the Clackamas River is presently storing 54,500 acre feet which is 126% of average.

STREAMFLOW

Streamflow forecasts for the April through September period are as follows:

<u>Station</u>	<u>Volume</u>	<u>Percent of 1948-62 Average</u>
Clackamas R. at Estacada	740,000 acre feet	83%
North Santiam at Mehama	790,000 acre feet	80%
South Santiam at Waterloo	520,000 acre feet	77%
McKenzie R. near Vida	1,150,000 acre feet	83%
Middle Fork Willamette below North Fork	802,000 acre feet	83%
Row near Dorena	103,000 acre feet	92%
Willamette R. near Salem	4,600,000 acre feet	83%

These forecasts are made with the assumption that normal temperatures and precipitation will occur from now until the end of the forecast period.

WATER SUPPLY OUTLOOK

expressed as "Poor", "Fair"
"Average" or "Excellent"

STREAM or AREA	FLOW PERIOD	
	SPRING SEASON	LATE SEASON
Calapooya	Average	Fair
Clackamas	Average	Average
McKenzie	Average	Average
Molalla	Average	Fair
Santiam, North	Average	Average
Santiam, South	Average	Fair
Willamette, Coast Fork	Average	Fair
Willamette, Middle Fork	Average	Average

RESERVOIR STORAGE (1,000 Ac. Ft.) March 1, 1967

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	1948-62 AVERAGE
Cottage Grove	30.0*	7.5	7.6	9.6
Cougar	155.2*	40.2	16.6	- -
Detroit	299.9*	91.3	24.0	97.3 ^m
Dorena	70.5*	18.5	17.2	21.1
Fall Creek	115.0*	44.5	31.1	- -
Fern Ridge	94.2*	33.3	31.4	37.2
Hills Creek	200.0*	58.7	24.8	- -
Lookout Point	337.2*	97.6	23.7	101.9 ^m
Timothy Lake	61.7	54.5	23.0	43.1 ^m

*Multiple purpose reservoir--space reserved primarily for flood runoff.

STREAMFLOW FORECASTS^a(1,000 Ac. Ft.) as of March 1, 1967

FORECAST POINT		FORECAST THIS YEAR	FORECAST PERIOD	1948-62 AVERAGE	THIS YEAR AS PERCENT. OF AVERAGE ⁱ
NO.	NAME				
2080	Clackamas at Big Bottom	132	April-July	150	88
		163	April-Sept.	184	88
2100	Clackamas at Estacada	640	April-July	770	83
		740	April-Sept.	890	83
2095	Clackamas above Three Lynx	505	April-July	584	86
		598	April-Sept.	683	88
1590	McKenzie at McKenzie Bridge	410	April-July	502	82
		550	April-Sept.	658	84
1625	McKenzie near Vida	940	April-July	1144	82
		1150	April-Sept.	1392	83
2090	Oak Grove Fork above Power Intake	138	April-July	147	94
		176	April-Sept.	190	93
1545	Row near Dorena	98	April-July	108	91
		103	April-Sept.	112	92
1830	Santiam, North at Mehama ^d	700	April-July	884	79
		790	April-Sept.	991	80
1875	Santiam, South at Waterloo	485	April-July	637	76
		520	April-Sept.	675	77
1480	Willamette, Mid. Fk. blw. N. Fk. nr. Oakridge ^d	700	April-July	863	81
		802	April-Sept.	968	83
1910	Willamette at Salem ^d	4100	April-July	5040	81
		4600	April-Sept.	5566	83

(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1948-62 adjusted average. (i) 1948-62, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.

WILLAMETTE WATERSHEDS

LEGEND

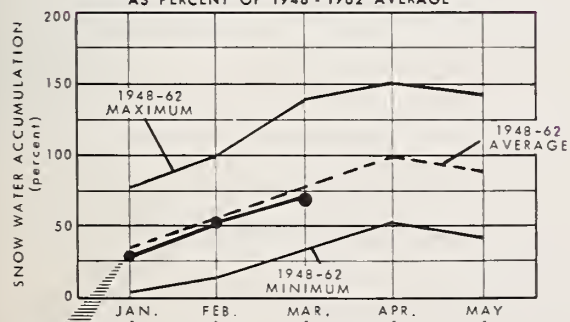
- Watershed Boundary
- Sub-watershed Boundary
- Soil Conservation District Bdry.
- County Boundary
- ▲ Forecast Point
- Snow Course
- ⚡ Radio Telemetry
- L Precipitation Gage
- 9 Temperature Gage



10 0 10 20 30
SCALE IN MILES



SNOW WATER ACCUMULATION IN AREA 8 AS PERCENT OF 1948-1962 AVERAGE



THIS YEAR

Data from selected snow courses.
Measured about the first of each month

Willamette Watersheds

SNOW

SNOW COURSE		CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches)	
NAME	ELEVATION				LAST YEAR	1948-62 AVERAGE
Big Bottom	2118	2/27	0	0.0	9.4	6.4 <i>h</i>
Cascade Summit	4880	2/28	70	24.0	28.2	28.9
Champion	4500	3/2	68	23.8	38.8	24.7
Clackamas Lake	3400	2/24	25	7.5	16.8	12.7
Clear Lake	3500	2/28	15	5.2	17.1	11.9
Clear Lake (Experimental)	3500	2/28	32	11.6	21.2	21.1 <i>h</i>
Dead Horse Grade	3800	2/28	46	17.3	24.5	19.3 <i>h</i>
Detroit Town	1610	3/1	0	0.0	0.0	1.8 <i>h</i>
Detroit Dam	1580	3/1	0	0.0	0.0	0.7 <i>h</i>
Golden Curry Creek	3136	3/2	7	2.2	16.8	5.9 <i>h</i>
Hogg Pass	4755	3/1	90	33.3	43.8	39.4
Lake Harriet	2045	<i>b</i>				
Layng Creek	1200	3/2	0	0.0	T	0.0 <i>m</i>
Lost Creek Ranch	1956	2/28	0	0.0	9.1	3.0 <i>h</i>
Lund Park	1740	3/2	0	0.0	0.6	1.0 <i>h</i>
Marion Forks	2730	3/1	29	11.7	18.8	14.5
Marys Peak	3620	<i>b</i>				
McCredie Springs	2120	2/28	0	0.0	0.0	0.7 <i>h</i>
McKenzie	4800	2/28	89	33.0	39.8	41.6 <i>h</i>
McKenzie Bridge	1372	2/28	0	0.0	0.0	1.2 <i>h</i>
Meridian Dam	750	2/28	0	0.0	0.0	0.0 <i>h</i>
Mill City	826	3/1	0	0.0	0.0	0.0 <i>m</i>
Oakridge	1310	2/28	0	0.0	0.0	T <i>h</i>
Peavine Ridge	3500	<i>b</i>				
Phlox Point	5400	2/27	126	55.3	56.1	57.1
Railroad Overpass	2750	2/28	0	0.0	10.1	3.7 <i>h</i>
Salt Creek Falls	4000	2/28	47	15.3	23.3	15.5 <i>h</i>
Santiam Junction	3990	3/1	51	19.4	30.3	23.4
Still Creek	3670	2/27	41	16.8	28.2	23.0
Timothy Lake	3295	<i>b</i>				
Vida	800	2/28	0	0.0	0.0	0.0 <i>h</i>
Waldc Lake	5500	2/28	74	25.3	22.8	- -
Weaver Creek	2440	3/2	T	T	1.4	2.0 <i>h</i>
White Branch Slide	2800	2/28	19	6.9	13.7	6.4 <i>h</i>
Whitewater Bridge	2175	3/1	0	0.0	10.6	6.1 <i>h</i>
Willamette Pass	5600	2/27	97	34.7	36.3	37.7 <i>h</i>
RADIO REPORT BY AUTOMATIC SNOW-MEASURING STATIONS						
			<u>Time</u>			
Peavine Ridge	3500	3/1	<i>b</i>		21.7	- -
Phlox Point	5400	3/1	9:00 A.M.	57.9	50.4	- -

"The Conservation of Water begins with the Snow Survey"

WATER SUPPLY OUTLOOK ROGUE, UMPQUA, WATERSHEDS OREGON

as of

March 1, 1967



U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ... OREGON STATE ENGINEER

GENERAL OUTLOOK

Water supply prospects for farmers, ranchers and other water users in the Umpqua and Rogue basins ranges from average to fair. Users having only fair supplies will be those diverting directly from streams originating at low elevations.

SNOW COVER

Due to an extremely dry February, water content of the mountain snow-pack increased only slightly at most stations while some of the lower elevation measurements even decreased. At mostly higher elevations snow cover is currently 90% of average compared to 99% last month.

SOIL MOISTURE

Mountain soils beneath the snowpack are thoroughly wetted and should not detract from the snow melt runoff.

RESERVOIR STORAGE

The Talent Irrigation District is currently storing 78,600 acre feet compared to 79,100 acre feet held at this time last year.

The Medford Irrigation District has 9,200 acre feet stored in Fourmile Lake and Fish Lake. This compares with 18,000 acre feet held last year.

STREAMFLOW

Forecasts of expected streamflow for 1967 in the April-September period are:

<u>Station</u>	<u>Volume</u>	<u>Percent of 1948-62 Average</u>
North Umpqua blw. Lemolo Res.	150,000	81%
Clearwater abv. Trap Creek	65,000	87%
Rogue abv. Prospect	298,000	84%
Rogue at Raygold nr. Central Pt.	814,000	80%
Applegate nr. Copper	134,000	94%
Illinois at Kerby	195,000	92%

The Grants Pass Irrigation District may have to alternate water in the Highline Canals by August 10, 1967.

These forecasts are made with the assumption normal precipitation and temperatures will occur from now until the end of the forecast period.

Report prepared by
W. T. FROST AND TOM GEORGE
U. S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE
1218 S.W. WASHINGTON ST.
PORTLAND, OREGON 97205

These forecasts are made with the assumption that near average conditions of precipitation and temperature will prevail from this date to the end of the forecast period.

WATER SUPPLY OUTLOOK expressed as "Poor", "Fair", "Average" or "Excellent"

STREAM or AREA	FLOW PERIOD	
	SPRING SEASON	LATE SEASON
Althouse Creek	Average	Fair
Applegate River, Big	Average	Average
Applegate River, Little	Average	Average
Ashland Creek	Average	Average
Butte Creek, Big	Average	Average
Butte Creek, Little	Average	Average
Cow Creek	Fair	Fair
Deer Creek	Average	Fair
Elk Creek	Average	Fair
Emigrant Creek (abv. Res.)	Average	Average
Evans Creek	Fair	Fair
Gold Hill Irrigation Dist.	Average	Average
Grants Pass Irrigation Dist.	Average	Average
Grave Creek	Fair	Fair
Illinois River, East Fork	Average	Average
Illinois River, West Fork	Average	Average
Jump-off-Joe Creek	Average	Fair
Neil Creek	Average	Average
Red Blanket Creek	Average	Average
Rogue River	Average	Average
Sucker Creek	Average	Fair
Table Rock Irrig. Dist.	Average	Average
Thompson Creek	Average	Fair
Wagner Creek	Average	Average
Williams Creek	Average	Fair

RESERVOIR STORAGE (1,000 Ac. Ft.) March 1, 1967

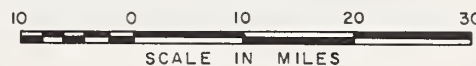
RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	1948-62 AVERAGE
Emigrant Gap	39.0	33.7	27.0	27.4*
Fish Lake	7.8	4.1	7.4	5.4
Fourmile Lake	16.1	5.1	10.6	8.9
Howard Prairie	60.0	33.6	41.1	- -
Hyatt Prairie	16.1	11.3	11.0	8.1
*Average for years of record after reconstruction.				

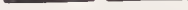
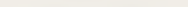






STREAMFLOW FORECASTS^a (1,000 Ac. Ft.) as of March 1, 1967

FORECAST POINT		FORECAST THIS YEAR	FORECAST PERIOD	1948-62 AVERAGE	THIS YEAR AS PERCENT. OF AVERAGE ⁱ
NO.	NAME				
3620	Applegate near Copper	134	April-Sept.	142	94
3145	Clearwater above Trap Creek ^d	65	April-Sept.	75	87
5045	Fourmile Lake net Inflow ^d	6.4	March-Sept.	6.8	94
		6.0	April-Sept.	6.6	91
5140	Hyatt Reservoir net Inflow ^d	5.6	April-Sept.	6.4	88
3770	Illinois River at Kerby	320	March-July	348	92
		195	April-Sept.	212	92
3425	Little Butte, N. Fk. at Fish Lk. nr. Lake Cr. ^d	*	April-Sept.	16.0	
3415	Little Butte, So. Fk. nr. Lake Creek	*	April-July	38	
	Note: Minimum flow will drop to 100 c.f.s. by *.				
3280	Rogue above Prospect	255	April-July	295	86
		298	April-Sept.	355	84
3320	Rogue, South Fork near Prospect ^d	64	April-July	70	92
		74	April-Sept.	82	90
3350	Rogue River below South Fork	513	April-July	611	84
		625	April-Sept.	754	83
3590	Rogue at Raygold near Central Point	667	April-July	837	80
		814	April-Sept.	1001	80
3615	Rogue at Grants Pass	775	April-Sept.	993	78
3135	Umpqua, No. blw. Lemolo Res. nr. Toketee Falls ^d	150	April-Sept.	186	81
	*Snow survey information not available.				

(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1948-62 adjusted average. (i) 1948-62, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.

ROGUE, UMPQUA WATERSHEDS



-  Watershed Boundary
-  Sub-watershed Boundary
-  Soil Conservation District Bdry.
-  County Boundary
-  Forecast Point
-  Snow Course
-  Precipitation Gage
-  Radio Telemetry

Rogue, Umpqua Watersheds

SNOW

SNOW COURSE		CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches)	
NAME	ELEVATION				LAST YEAR	1948-62 AVERAGE
Althouse	4530	2/27	13	5.6	23.2	6.2
Annie Spring	6018	2/27	100	38.8	40.6	39.8
Beaver Dam Creek	5100	2/25	37	12.1	16.2	- -
Big Red Mountain	6500	2/28	70	28.3	33.2	28.2 ^h
Billie Creek Divide	5300	2/24	54	18.8	19.1	22.1
Caliban	6500	2/24	79	29.0	37.5	- -
Champion	4500	3/2	68	23.8	38.8	24.7
Cold Springs Camp	6100	2/21	81	28.4	26.2	- -
Deadwood Junction	4600	2/25	30	8.2	11.7	- -
Diamond Crater Summit	5800	2/24	80	28.2	31.1	- -
Diamond Lake	5315	2/24	51	16.8	24.0	21.9
Eden Valley Summit	2390	b				
Fish Lake	4865	b				
Fourmile Lake	6000	2/24	58	22.0	- -	25.0
Grayback Peak	6000	2/27	49	21.0	41.7	25.8
Howard Prairie	4500	2/25	27	9.0	10.8	- -
Hyatt Prairie Reservoir	4900	2/27	25	7.3	10.9	8.7
King Mountain #1	4500	2/24	0	0.0	- -	- -
King Mountain #2	4000	2/24	0	0.0	- -	- -
King Mountain #3	3648	2/24	0	0.0	- -	- -
King Mountain #4	3049	2/24	0	0.0	- -	- -
King Mountain #5	2380	2/24	0	0.0	- -	- -
King Mountain #6	1820	2/24	0	0.0	- -	- -
Little Red Mountain	6500	2/28	56	23.1	31.6	22.3 ^h
Mt. Ashland Switchback	6400	2/24	77	29.2	36.5	- -
North Umpqua	4215	2/27	36	14.1	18.5	12.6 ^h
Page Mountain	4045	2/27	0	0.0	17.0	5.4 ^h
Park Headquarters	6450	2/27	122	50.5	49.5	50.3
Red Butte #1	4560	2/23	32	13.0	- -	- -
Red Butte #2	4000	2/23	15	6.4	20.0	- -
Red Butte #3	3500	2/23	5	2.1	20.6	- -
Red Butte #4	3000	2/23	0	0.0	7.5	- -
Red Butte #5	2500	2/23	0	0.0	0.0	- -
Red Butte #6	2000	2/23	0	0.0	0.0	- -
Seven Lakes #1	6800	2/27	115	46.9	47.2	51.5 ^h
Seven Lakes #2	6200	2/27	87	32.4	34.3	37.2 ^h
Silver Burn	3720	2/25	35	11.8	20.1	13.1
Siskiyou Summit	4630	2/27	15	6.4	15.2	6.9
Ski Bowl Road	6000	2/24	69	24.5	34.7	- -
South Fork Canal	3500	2/25	0	0.0	9.2	2.7
Trap Creek	3800	2/27	35	14.3	16.7	10.7 ^h
Whaleback	5140	2/28	72	24.7	34.9	31.7
Windigo Pass	5800	2/28	90	32.8	35.2	39.3 ^h

"The Conservation of Water begins with the Snow Survey"

WATER SUPPLY OUTLOOK KLAMATH WATERSHEDS OREGON

as of

March 1, 1967

U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ... OREGON STATE ENGINEER

GENERAL OUTLOOK

Klamath Basin irrigators and other water users can expect average water supplies during the coming irrigation season.

SNOW COVER

In spite of an extremely dry February, mountain snow packs remain above average on the Sprague and Williamson watersheds. Snow cover over all of the Klamath Basin is currently 94% of average.

SOIL MOISTURE

Mountain soils are thoroughly wetted for this time of year and will not detract from the snow melt runoff.

RESERVOIR STORAGE

Stored water supplies are close to average for this date. Clear Lake is currently holding 192,100 acre feet which is 93% of average, Gerber 46,000 acre feet at 115% and Upper Klamath Lake 346,800 acre feet or 84% of average.

STREAMFLOW

Forecasts of expected streamflow in the April-September period of 1967 are as follows:

<u>Station</u>	<u>Volume</u>	<u>Percent of 1948-62 Average</u>
Sprague nr. Chiloquin	292,000	101%
Williamson R. below Sprague	493,000	101%
Inflow to Upper Klamath Lake	664,000	104%
Gerber Reservoir Inflow	36,000	95%
Clear Lake Reservoir Inflow	72,000	95%

These forecasts are made assuming normal precipitation and temperatures will occur from now until the end of the forecast period.

WATER SUPPLY OUTLOOK

expressed as "Poor", "Fair",
"Average" or "Excellent"

STREAM or AREA	FLOW PERIOD	
	SPRING SEASON	LATE SEASON
Ft. Klamath Valley	Average	Average
Lost River (Clear Lake)	Average	Average
Lost River (Gerber)	Average	Average
Lost River (Willow Res.)	Average	Average
Sprague River	Average	Average
Upper Klamath Lake	Average	Average
Williamson River	Average	Average

RESERVOIR STORAGE (1,000 Ac. Ft.) March 1, 1967

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	1948-62 AVERAGE
Clear Lake	440.2	192.1	221.3	207.4
Gerber	94.0	46.0	52.0	39.9
Upper Klamath Lake	584.0	346.8	328.0	410.6

STREAMFLOW FORECASTS^a(1,000 Ac. Ft.) as of March 1, 1967

FORECAST POINT		FORECAST THIS YEAR	FORECAST PERIOD	1948-62 AVERAGE	THIS YEAR AS PERCENT OF AVERAGE ^l
NO.	NAME				
823	Clear Lake Reservoir Inflow ^k	72	March-June	76	95
8215	Gerber Reservoir Inflow ^k	36	March-June	38	95
5010	Sprague near Chiloquin	290	March-June	292	99
		292	April-Sept.	289	101
5070	Upper Klamath Lake net Inflow ^k	687	March-June	671	102
		664	April-Sept.	639	104
5025	Williamson below Sprague River	460	March-June	477	96
		493	April-Sept.	490	101

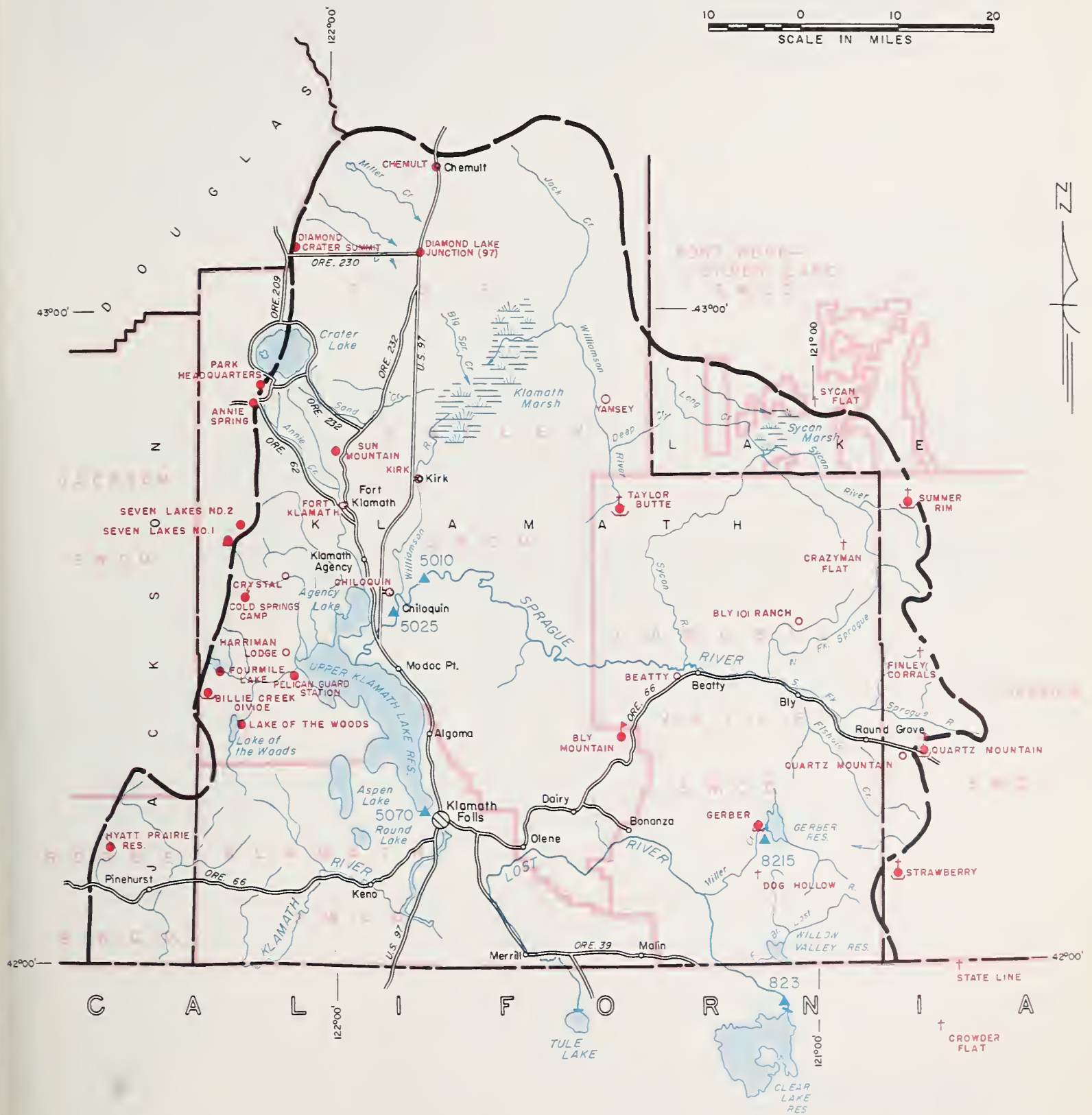
SOIL MOISTURE

STATION		PROFILE (Inches)		SOIL MOISTURE (Inches)			
		DEPTH	CAPACITY	DATE	THIS YEAR	LAST YEAR	2 YEARS AGO
NAME	ELEVATION						
Bly Mountain	5090	42	14.0	2-20-67	10.3	- -	12.6

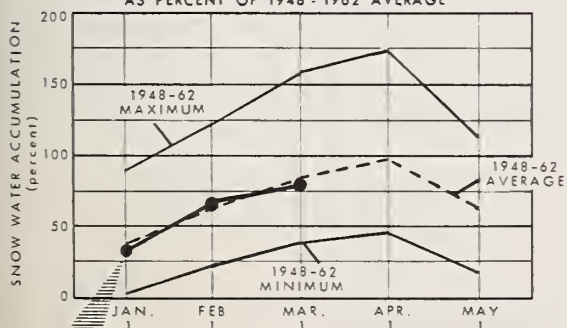
(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1948-62 adjusted average. (i) 1948-62, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.

KLAMATH WATERSHEDS

10 0 10 20
SCALE IN MILES



SNOW WATER ACCUMULATION IN AREA 10
AS PERCENT OF 1948-1962 AVERAGE



THIS YEAR

Data from selected snow courses.
Measured about the first of each month.

LEGEND

- Watershed Boundary
- - - Sub-watershed Boundary
- - - Soil Conservation District Bdry.
- - - County Boundary
- ▲ Forecast Point
- Snow Course
- + Aerial Snow Depth Gage
- COPCO Snow Station
- Soil Moisture Station
- Precipitation Gage
- ⚡ Radio Telemetry

SNOW

SNOW COURSE		CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches)	
NAME	ELEVATION				LAST YEAR	1948-62 AVERAGE
Annie Spring	6018	2/27	100	38.8	40.6	39.8
Beatty (PP&L)	4300	2/28	0	0.0	- -	0.1
Billie Creek Divide	5300	2/24	54	18.8	19.1	22.1
Bly Mountain	5090	2/20	24	8.2	8.4	4.8 ^m
Bly 101 Ranch (PP&L)	4800	Report delayed				
Chemult	4760	2/28	32	9.8	12.6	11.4
Chiloquin (PP&L)	4187	2/28	0	0.0	2.0	0.9
Cold Springs Camp	6100	2/21	81	28.4	26.2	- -
Crazyman Flat	6100	2/27	27	8.9	8.4 ^a	8.5 ^m
Crowder Flat (Calif.)	5200	2/27	4	1.3	3.9	2.2 ^m
Crystal (PP&L)	4200	2/27	26	7.5	9.1	9.7
Diamond-Crater Summit	5800	2/24	80	28.2	31.1	- -
Diamond Lake Junction (97)	4600	2/23	21	6.5	8.8	- -
Dog Hollow	4900	2/28	0	0.0	0.8	0.1 ^m
Finley Corrals	6000	2/28	35	11.6	10.1 ^a	14.0 ^m
Fort Klamath (PP&L)	4150	2/27	10	3.4	6.4	3.3
Fourmile Lake	6000	2/24	58	22.0	- -	25.0 ^h
Gerber	4850	3/1	0	0.0	3.6	2.2 ^h
Harriman (PP&L)	4200	2/28	4	1.0	5.4	2.9 ^m
Hyatt Prairie Reservoir	4900	2/27	25	7.3	10.9	8.7 ^h
Kirk (PP&L)	4533	2/15	18	7.0	9.4	5.7
Lake of the Woods	4960	2/26	25	8.8	11.2	11.8
Park Headquarters	6450	2/27	122	50.5	49.5	50.3
Pelican Guard Station	4150	2/24	9	3.4	5.1	- -
Quartz Mountain	5320	2/27	21 ^a	7.1	8.2	6.2
Quartz Mountain (PP&L)	5504	2/28	25	7.9	9.2	6.3
Seven Lakes #1	6800	2/27	115	46.9	47.2	51.5 ^h
Seven Lakes #2	6200	2/27	87	32.4	34.3 ^a	37.2 ^h
State Line (Calif.)	5750	2/28	22	7.3	8.4	8.9 ^m
Strawberry	5760	2/26	24	7.8	7.8	7.9 ^h
Summer Rim	7200	2/27	49	16.3	13.6	14.8
Sun Mountain	5350	2/23	63 ^a	21.4	20.0	23.9
Sycan Flat	5500	2/28	24	7.9	6.7	6.1 ^m
Taylor Butte	5100	2/27	22	7.1	5.5	6.2 ^h
Yamsey (PP&L)	4600					

WATER SUPPLY OUTLOOK LAKE COUNTY, GOOSE LAKE WATERSHEDS OREGON

as of

March 1, 1967

U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ... OREGON STATE ENGINEER

GENERAL OUTLOOK

A very dry February, with consequent reduction of the mountain snowpack of Lake county to 81 percent of the 15-year average (1948-62), reduces the water supply outlook for this region from above average one month ago to an even average as of March first. There will be some late-season shortages in the Silver Lake area and the Hart Mountain-Guano Lake area.

SNOW COVER

Water content of the mountain snowpack is average or better only at a few high-elevation snow courses. Snow is far below average in the lower elevations and totals only 81 percent average over the region.

SOIL MOISTURE

Moisture in the top four feet of the soil mantle remains unchanged from the 70 percent of capacity observed on February first. These wet soils will greatly favor runoff from the spring snow-melt.

RESERVOIR STORAGE

There were small gains in the stored water supplies. Drews Valley now contains 31,853 acre feet compared with 42,100 a. f. a year ago on this date. Cottonwood reservoir holds 1,596 acre feet compared with 900 acre feet last year.

STREAMFLOW

Inflow to Drews Valley reservoir, for the period March through July, is forecast at 49,000 acre feet or 104 percent of the 15-year average. If realized, this flow plus the 31,853 acre feet now held in storage will provide more than 80,000 with Cottonwood water additional.

Flow of the Chewaucan near Paisley is forecast at 100,000 acre feet March through June or 112 percent of the average.

Warner Valley streams are forecast as follows:

<u>Stream</u>	<u>Forecast</u>	<u>Period</u>	<u>Percent Average</u>
Deep Creek above Adel	78,000 a.f.	March-June	100%
Honey Creek near Plush	18,000 a.f.	March-June	100%
Twenty-mile Creek	26,000 a.f.	March-June	93%

These forecasts are made with assumption that near average conditions of temperature and precipitation will prevail from now through the forecast period.

WATER SUPPLY OUTLOOK

expressed as "Poor", "Fair"
"Average" or "Excellent"

RESERVOIR STORAGE (1,000 Ac. Ft.) March 1, 1967

STREAM or AREA	FLOW PERIOD	
	SPRING SEASON	LATE SEASON
Chewaucan	Average	Average
Crooked Creek	Average	Average
Deep Creek	Average	Average
Dry Creek	Average	Fair
East Side Goose Lake	Average	Fair
Guano Lake	Fair	Fair
Honey Creek	Fair	Average
Lakeview Water Users Assn.	Fair	Average
Rock Creek (Hart Mtn.)	Fair	Fair
Silver-Buck Creeks	Average	Fair
Summer Lake	Average	Average
Thomas Creek	Average	Average
Twentymile Creek	Average	Average
Warner Lakes	Average	Average

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	1948-62 AVERAGE
Cottonwood	8.7	1.6	0.9	3.6*
Drews	63.0	31.8	42.1	37.3
Thompson Valley	17.4	b		
*Average for years of record after reconstruction. ^a				

STREAMFLOW FORECASTS^a(1,000 Ac. Ft.) as of March 1, 1967

FORECAST POINT		FORECAST THIS YEAR	FORECAST PERIOD	1948-62 AVERAGE	THIS YEAR AS PERCENT. OF AVERAGE ⁱ
NO.	NAME				
3840	Chewaucan near Paisley	100	March-June	89	112
3715	Deep above Adel	78	March-June	78	100
3385	Drews Reservoir net Inflow ^d	49	March-July	47	104
3785	Honey near Plush	18.0	March-June	18.0	100
3660	Twentymile near Adel	26	March-June	28	93

SOIL MOISTURE

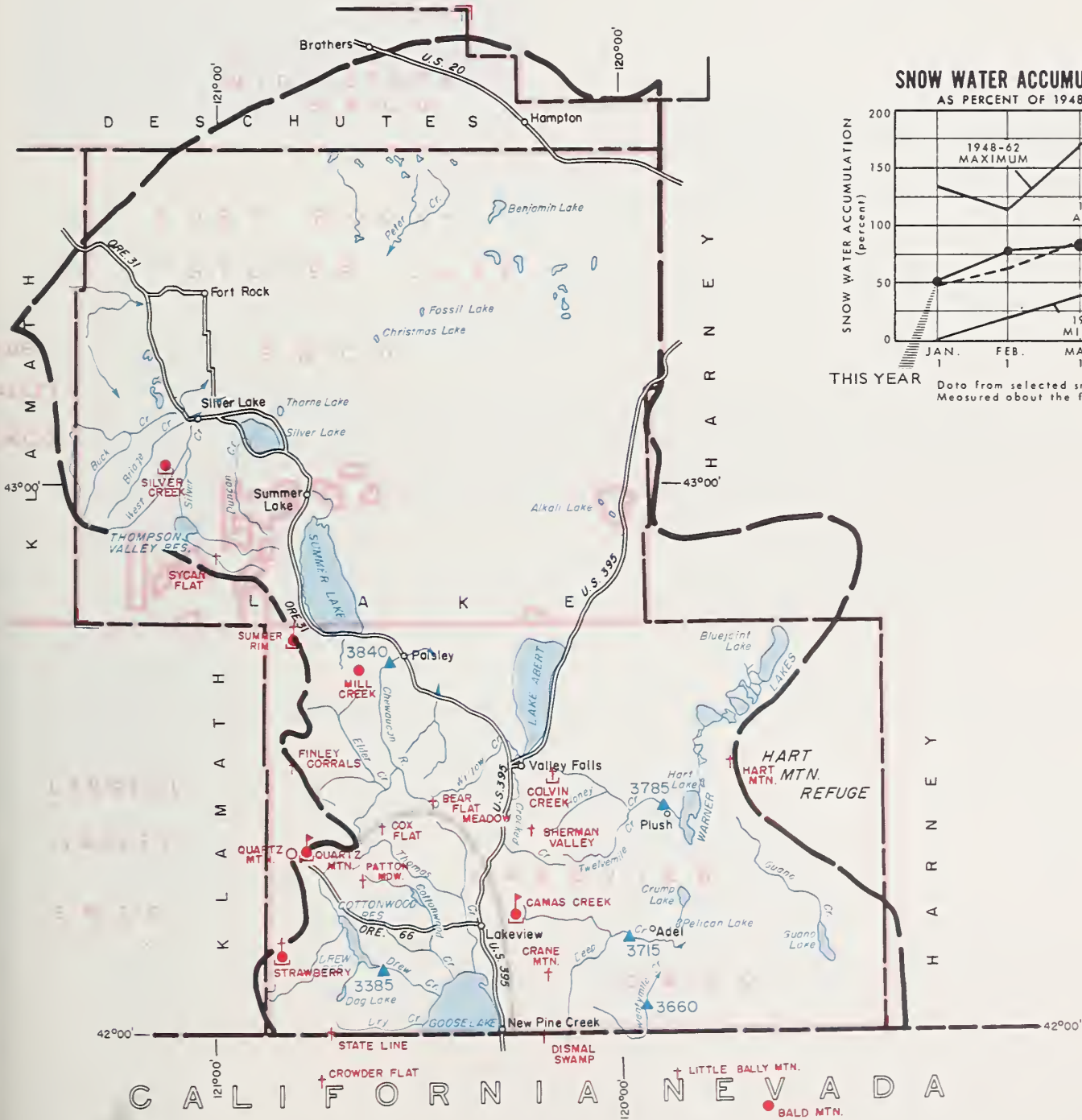
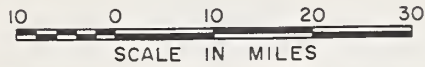
STATION		PROFILE (Inches)		SOIL MOISTURE (Inches)			
		DEPTH	CAPACITY	DATE	THIS YEAR	LAST YEAR	2 YEARS AGO
NAME	ELEVATION						
Camas Creek	5720	42	14.5	2-27-67	12.0	11.4	13.4
Quartz Mountain	5320	48	15.3	2-28-67	8.9	6.8	10.3

SNOW

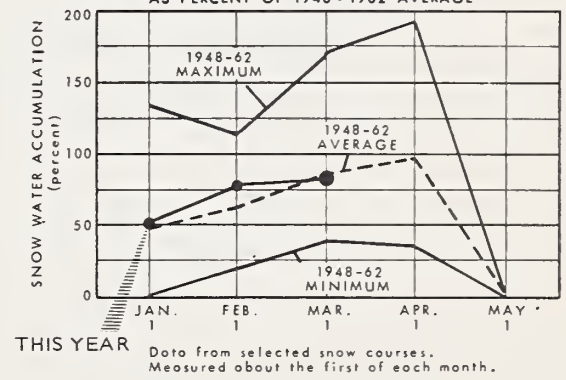
SNOW COURSE		CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	LAST YEAR	1948-62 AVERAGE
NAME	ELEVATION					
Bald Mountain (Nev.)	6720	2/28	14	4.8	2.7	3.5
Bear Flat Meadow ^e	5900	2/27	33	10.9	7.3	9.8 ^m
Camas Creek	5720	2/27	29	9.5	9.6	11.2
Colvin Creek ^e	6550	2/28	22	7.3	5.2	- -
Cox Flat ^e	5750	2/27	22	7.3	7.3	6.5 ^m
Crane Mountain ^e	6020	2/27	2	0.7	2.3	5.1 ^m
Crowder Flat ^e (Calif.)	5200	2/27	4	1.3	3.9	2.2 ^m
Dismal Swamp ^e (Calif.)	7000	2/27	46	15.2	10.4	15.8 ^m
Finley Corrals ^e	6000	2/28	35	11.6	10.1	14.0 ^m
Hart Mountain ^e	6350	2/27	2	0.7	2.3	2.0 ^m
Little Bally Mountain ^e (Nev.)	6600	2/27	7	2.3	3.2	- -
Mill Creek	6200	2/28	26	7.9	6.6	8.3
Patton Meadows ^e	6800	2/27	48	15.8	10.7	- -
Quartz Mountain (PP&L)	5504	2/28	25	7.9	9.2	6.3
Quartz Mountain	5320	2/27	21	7.1	8.2	6.2
Sherman Valley ^e	6600	2/27	35	11.6	8.7	11.1 ^m
Silver Creek	4900	2/27	7	2.5	4.8	3.5
State Line ^e (Calif.)	5750	2/28	22	7.3	8.4	8.9 ^m
Strawberry	5760	2/26	24	7.8	7.8	7.9 ^h
Summer Rim	7200	2/27	49	16.3	13.6	14.8
Sycan Flat ^e	5500	2/28	24	7.9	6.7	6.1 ^m
Cedar Pass (Calif.)	7100	2/27	41	11.8	10.0	13.8

(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1948-62 adjusted average. (i) 1948-62, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.

LAKE COUNTY, GOOSE LAKE WATERSHEDS



SNOW WATER ACCUMULATION IN AREA 11
AS PERCENT OF 1948 - 1962 AVERAGE



LEGEND

- Watershed Boundary
- Sub-watershed Boundary
- Soil Conservation District Bdry
- County Boundary
- ▲ Forecast Point
- Snow Course
- † Aerial Snow Depth Gage
- COPCO Snow Station
- ▶ Soil Moisture Station
- └ Precipitation Gage

WATER SUPPLY OUTLOOK HARNEY BASIN WATERSHEDS OREGON

as of

March 1, 1967

U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ... OREGON STATE ENGINEER

GENERAL OUTLOOK

Ranchers and other water users in Harney Basin can expect average water supplies in the spring and summer of 1967.

SNOW COVER

Water content of the mountain snowpack was about 81 percent of the 15-year average (1948-62) on March first. A year ago the snow was about 25 percent less than this year. Abnormal temperatures and much below average precipitation in February limited the increases in the snow pack.

SOIL MOISTURE

Moisture in the soil mantle beneath the snowpack is about 79 percent of capacity in South Harney and about 83 percent of capacity in North Harney. This moisture will favor runoff from spring snow-melt.

STREAMFLOW

Forecasts of expected streamflow in the April-September period of 1967 are as follows:

<u>Stream</u>	<u>Volume</u>	<u>Percent of 1948-62 Average</u>
Silvies R. near Burns	85,000 acre feet	86%
Silver Creek near Riley	22,000 acre feet	100%
Donner und Blitzen R.	72,000 acre feet	116%
Trout Creek near Denio	10,000 acre feet	119%

These forecasts are made with the assumption that near average conditions of temperature and precipitation will prevail from now until the end of the forecast period.

Report prepared by

W.T. FROST AND TOM GEORGE

U. S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE

1218 S.W. WASHINGTON ST.
PORTLAND, OREGON 97205

WATER SUPPLY OUTLOOK

expressed as "Poor", "Fair"
"Average" or "Excellent"

STREAM or AREA	FLOW PERIOD	
	SPRING SEASON	LATE SEASON
Catlow Valley	Average	Average
Cow Creek	Average	Average
Donner und Blitzen River	Average	Average
Mill-Coffeepot Creeks	Average	Average
Rattlesnake Creek	Average	Average
Silver Creek	Average	Average
Silvies River	Average	Average
Soldier-Prather Creek	Average	Average
Trout Creek	Average	Average
Whitehorse Creek	Average	Average

RESERVOIR STORAGE (1,000 Ac. Ft.) March 1, 1967

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	1948-62 AVERAGE

STREAMFLOW FORECASTS^a(1,000 Ac. Ft.) as of March 1, 1967

FORECAST POINT		FORECAST THIS YEAR	FORECAST PERIOD	1948-62 AVERAGE	THIS YEAR AS PERCENT. OF AVERAGE ⁱ
NO.	NAME				
3960	Donner und Blitzen near Frenchglen	68	March-June	59	115
		72	April-Sept.	62	116
4030	Silver near Riley	22	April-July	22	100
3935	Silvies near Burns	106	March-June	116	91
		85	April-Sept.	99	86
4065	Trout near Denio	10.5	March-July	8.7	121
		10.0	April-Sept.	8.4	119

SOIL MOISTURE

STATION		PROFILE (Inches)		SOIL MOISTURE (Inches)			
		DEPTH	CAPACITY	DATE	THIS YEAR	LAST YEAR	2 YEARS AGO
NAME	ELEVATION						
Blue Mountain Springs	5900	42	16.9	2-24-67	10.8	7.0	12.6
Fish Creek	7900	48	15.0	3-1-67	10.7	10.3	- -
Folly Farm	4450	30	12.5	b			
Silvies	6900	48	16.4	3-1-67	14.2	11.5	12.7
Snow Mountain	6300	48	16.7	2-27-67	14.8	12.2	16.5
Starr Ridge	5150	36	10.6	2-23-67	10.4	7.9	10.4
Stinking Water Summit	4800	48	21.9	b			
Willow-Bald	5000	24	6.6	2-27-67	6.4	3.8	6.5

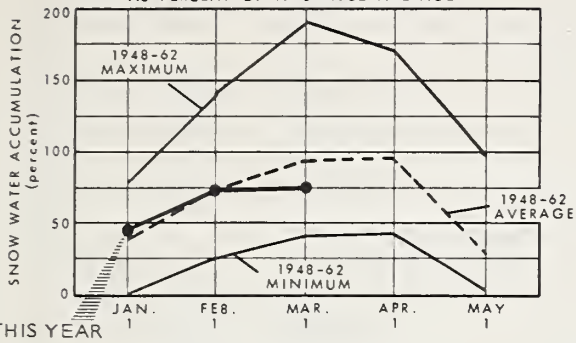
SNOW

SNOW COURSE		CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches)	
NAME	ELEVATION				LAST YEAR	1948-62 AVERAGE
Blue Mountain Springs	5900	2/24	38	11.6	9.6	15.8
Buck Pasture ^e	5700	2/27	10	3.2	2.7	- -
Buckskin Lake ^e	5200	2/27	0	0.0	0.9	- -
Call Meadows ^e	5340	2/27	10	3.2	3.4	- -
Crow Camp ^e	5500	2/27	3	0.9	1.0	- -
Delintment Lake	5600	2/27	20	6.5	6.6	- -
Denio Creek ^e	6000	2/27	T	T	1.7	- -
Disaster Peak (Nev.)	6500	2/27	35	12.4	10.5	14.6 ^h
Emigrant Butte	5000	2/27	13	4.5	4.7	- -
Fish Creek	7900	2/27	60	20.4	14.8	- -
Hart Mountain ^e	6350	2/27	2	0.7	2.3	2.0 ^m
Idlewild Camp	5200	2/24	16	5.4	4.5	5.4
Izee Summit	5293	2/23	24	6.7	7.5	8.0
Lake Creek	5120	2/24	28	8.5	6.1	10.5
Oregon Canyon ^e	6950	2/27	27	8.9	3.8	- -
Rock Spring	5100	2/24	16	5.1	5.1	5.6
Silvies	6900	2/27	30	9.9	7.2	- -
Snow Mountain	6300	2/27	37	12.6	9.9	- -
Starr Ridge	5150	2/23	16	4.7	4.7	5.6
Stinking Water	4800	2/27	7	2.1	2.1	3.7 ^h
Trout Creek ^e	7800	2/27	30	9.9	5.8	- -
"V" Lake ^e	6600	2/27	20	6.6	3.8	- -

(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1948-62 adjusted average. (i) 1948-62, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.

HARNEY BASIN WATERSHEDS

SNOW WATER ACCUMULATION IN AREA 12
AS PERCENT OF 1948-1962 AVERAGE



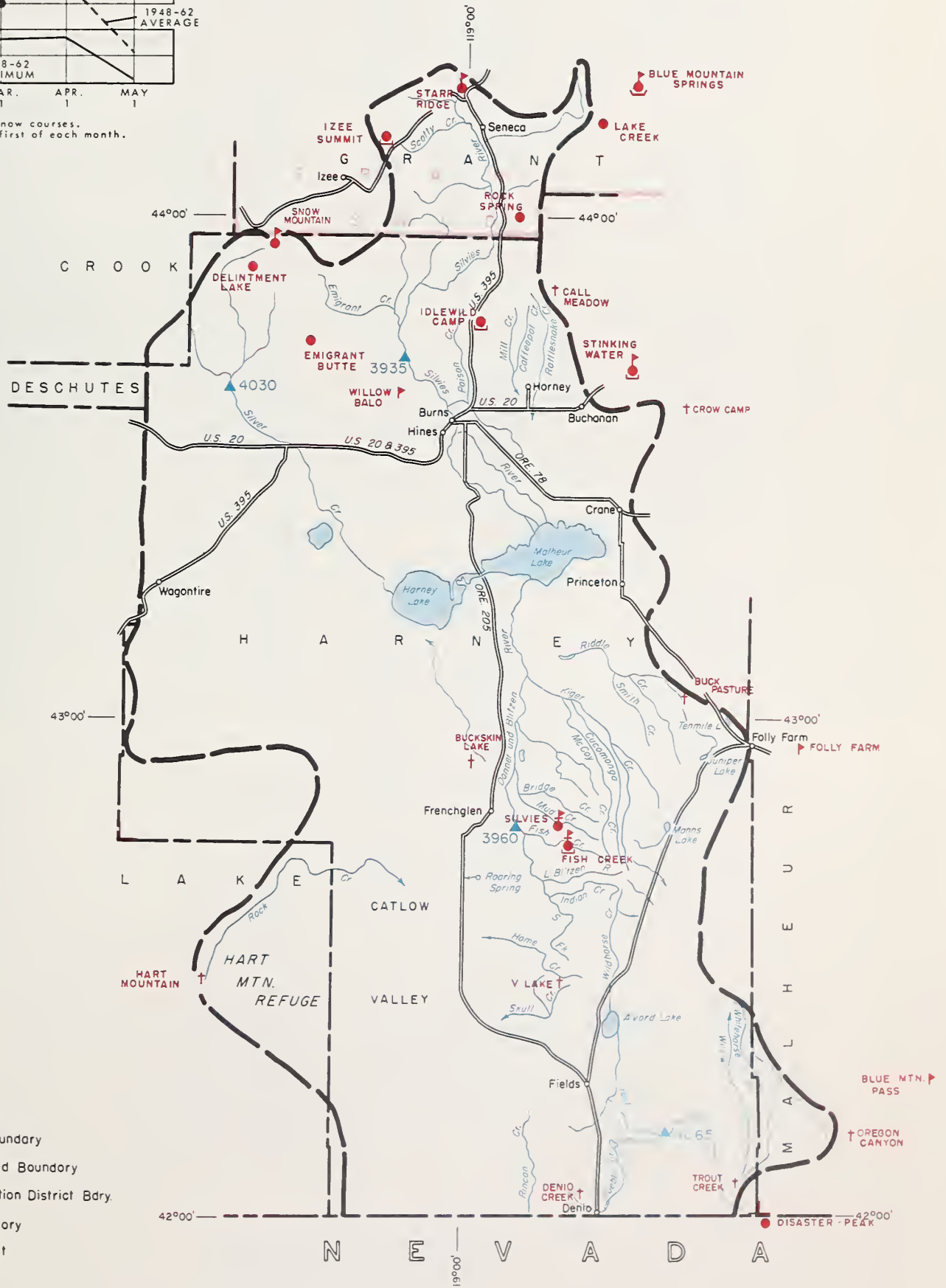
Data from selected snow courses.
Measured about the first of each month.

10 0 10 20 30
SCALE IN MILES

THIS YEAR



- LEGEND**
- Watershed Boundary
 - - - Sub-watershed Boundary
 - - - Soil Conservation District Bdry.
 - - - County Boundary
 - ▲ Forecast Point
 - Snow Course
 - † Aerial Snow Depth Gage
 - ▶ Soil Moisture Station
 - ⌈ Precipitation Gage



The Following Organizations Cooperate in the Oregon Snow Survey Work

STATE

- Idaho Cooperative Snow Surveys
- Nevada Cooperative Snow Surveys
- Oregon State University
- Oregon State Engineer and Corps of State Watermasters
- Oregon State Highway Engineers
- Soil and Water Conservation Districts of Oregon

COUNTY

- Douglas County Water Resources Survey

FEDERAL

- Department of Agriculture
 - Cooperative Extension Service
 - Forest Service
 - Soil Conservation Service
- Department of Commerce
 - Weather Bureau
- Department of the Interior
 - Bonneville Power Administration
 - Bureau of Land Management
 - Bureau of Reclamation
 - Fish and Wildlife Service
 - Geological Survey
 - National Park Service
- Department of National Defense
 - Corps of Army Engineers

PUBLIC UTILITIES

- Pacific Power and Light Company
- Portland General Electric Company
- California-Pacific Utilities Company

MUNICIPALITIES

- City of Baker
- City of La Grande
- City of The Dalles
- City of Walla Walla

IRRIGATION DISTRICTS

- Arnold Irrigation District
- Associated Ditch Companies
- Burnt River Irrigation District
- Central Oregon Irrigation District
- East Fork Irrigation District
- Grants Pass Irrigation District
- Hood River Irrigation District
- Jordan Valley Irrigation District
- Juniper Flat Irrigation District
- Lakeview Water Users, Incorporated
- Medford Irrigation District
- Middle Fork Irrigation District
- North Board of Control - Owyhee Project
- North Unit Irrigation District
- Ochoco Irrigation District
- Rogue River Valley Irrigation District
- South Board of Control - Owyhee Project
- Squaw Creek Irrigation District
- Talent Irrigation District
- Tumalo Project
- Vale-Oregon Irrigation District
- Warm Springs Irrigation District

PRIVATE ORGANIZATIONS

- Amalgamated Sugar Company
- The Crag Rats, Hood River, Oregon

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
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necessary for forecasting
water supply for irrigation,
domestic and municipal water
supply, hydro-electric power
generation, navigation,
mining and industry

*"The Conservation of Water begins
with the Snow Survey"*

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